

FILE 'HOME' ENTERED AT 08:22:55 ON 22 FEB 2002 ✓

=> f biosis

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> file biosis

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
0.30	0.30

FILE 'BIOSIS' ENTERED AT 08:24:02 ON 22 FEB 2002
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 21 February 2002 (20020221/ED)

=> s echinacea

L1 399 ECHINACEA

=> s coccidiosis

L2 1864 COCCIDIOSIS

=> s l1 and l2

L3 0 L1 AND L2

=> file medline

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
0.77	1.07

FILE 'MEDLINE' ENTERED AT 08:24:52 ON 22 FEB 2002

FILE LAST UPDATED: 21 FEB 2002 (20020221/UP). FILE COVERS 1958 TO DATE.

On April 22, 2001, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE now contains IN-PROCESS records. See HELP CONTENT for details.

MEDLINE is now updated 4 times per week. A new current-awareness alert frequency (EVERYUPDATE) is available. See HELP UPDATE for more information.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2001 vocabulary. Enter HELP THESAURUS for details.

The OLDMEDLINE file segment now contains data from 1958 through 1965. Enter HELP CONTENT for details.

Trying 3106016892...Open

Welcome to STN International! Enter x:x
LOGINID:sssptal600ixf
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Sep 17	IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH
NEWS 3	Oct 09	Korean abstracts now included in Derwent World Patents Index
NEWS 4	Oct 09	Number of Derwent World Patents Index updates increased
NEWS 5	Oct 15	Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS 6	Oct 22	Over 1 million reactions added to CASREACT
NEWS 7	Oct 22	DGENE GETSIM has been improved
NEWS 8	Oct 29	AAASD no longer available
NEWS 9	Nov 19	New Search Capabilities USPATFULL and USPAT2
NEWS 10	Nov 19	TOXCENTER(SM) - new toxicology file now available on STN
NEWS 11	Nov 29	COPPERLIT now available on STN
NEWS 12	Nov 29	DWPI revisions to NTIS and US Provisional Numbers
NEWS 13	Nov 30	Files VETU and VETB to have open access
NEWS 14	Dec 10	WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS 15	Dec 10	DGENE BLAST Homology Search
NEWS 16	Dec 17	WELDASEARCH now available on STN
NEWS 17	Dec 17	STANDARDS now available on STN
NEWS 18	Dec 17	New fields for DPCI
NEWS 19	Dec 19	CAS Roles modified
NEWS 20	Dec 19	1907-1946 data and page images added to CA and Cplus
NEWS 21	Jan 25	BLAST(R) searching in REGISTRY available in STN on the Web
NEWS 22	Jan 25	Searching with the P indicator for Preparations
NEWS 23	Jan 29	FSTA has been reloaded and moves to weekly updates
NEWS 24	Feb 01	DKILIT now produced by FIZ Karlsruhe and has a new update frequency
NEWS 25	Feb 19	Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS EXPRESS		February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
NEWS HOURS		STN Operating Hours Plus Help Desk Availability
NEWS INTER		General Internet Information
NEWS LOGIN		Welcome Banner and News Items
NEWS PHONE		Direct Dial and Telecommunication Network Access to STN
NEWS WWW		CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

Left, right, and simultaneous left and right truncation are available in the Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

=> d his

(FILE 'HOME' ENTERED AT 08:22:55 ON 22 FEB 2002)

FILE 'BIOSIS' ENTERED AT 08:24:02 ON 22 FEB 2002
L1 399 S ECHINACEA
L2 1864 S COCCIDIOSIS
L3 0 S L1 AND L2

FILE 'MEDLINE' ENTERED AT 08:24:52 ON 22 FEB 2002

=> s l1 and l2

180 ECHINACEA
4235 COCCIDIOSIS
L4 0 L1 AND L2

<-----User Break----->

=> file agricola

COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
0.96	2.03

FILE 'AGRICOLA' ENTERED AT 08:26:32 ON 22 FEB 2002

FILE COVERS 1970 TO 21 Feb 2002 (20020221/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3

156 ECHINACEA
1 ECHINACEAS
156 ECHINACEA
(ECHINACEA OR ECHINACEAS)
1736 COCCIDIOSIS
L5 0 L1 AND L2

=> s eimeria

L6 2807 EIMERIA

=> s l1 and l6

156 ECHINACEA
1 ECHINACEAS
156 ECHINACEA
(ECHINACEA OR ECHINACEAS)
L7 0 L1 AND L6

=> d his

(FILE 'HOME' ENTERED AT 08:22:55 ON 22 FEB 2002)
FILE 'BIOSIS' ENTERED AT 08:24:02 ON 22 FEB 2002
L1 399 S ECHINACEA
L2 1864 S COCCIDIOSIS
L3 0 S L1 AND L2
FILE 'MEDLINE' ENTERED AT 08:24:52 ON 22 FEB 2002
L4 0 S L1 AND L2
FILE 'AGRICOLA' ENTERED AT 08:26:32 ON 22 FEB 2002
L5 0 S L3
L6 2807 S EIMERIA
L7 0 S L1 AND L6

=> d 14

L4 HAS NO ANSWERS
L1 399 SEA FILE=BIOSIS ABB=ON PLU=ON ECHINACEA
L2 1864 SEA FILE=BIOSIS ABB=ON PLU=ON COCCIDIOSIS
L4 0 SEA FILE=MEDLINE ABB=ON PLU=ON L1 AND L2

<-----User Break----->

=> s vaccine

6748 VACCINE
6216 VACCINES
L8 11062 VACCINE
(VACCINE OR VACCINES)

=> s 18 and 1`

170907 L`
(L)
L9 340 L8 AND L`

=> s 18 and 11

156 ECHINACEA
1 ECHINACEAS
156 ECHINACEA
(ECHINACEA OR ECHINACEAS)
L10 0 L8 AND L1

=> d his

(FILE 'HOME' ENTERED AT 08:22:55 ON 22 FEB 2002)
FILE 'BIOSIS' ENTERED AT 08:24:02 ON 22 FEB 2002

L1 399 S ECHINACEA
L2 1864 S COCCIDIOSIS
L3 0 S L1 AND L2

L4 FILE 'MEDLINE' ENTERED AT 08:24:52 ON 22 FEB 2002
0 S L1 AND L2

FILE 'AGRICOLA' ENTERED AT 08:26:32 ON 22 FEB 2002
L5 0 S L3
L6 2807 S EIMERIA
L7 0 S L1 AND L6
L8 11062 S VACCINE
L9 340 S L8 AND L`
L10 0 S L8 AND L1

=> s l6 and l8

L11 65 L6 AND L8

=> d l11 1-65

L11 ANSWER 1 OF 65 AGRICOLA
AN 2002:7420 AGRICOLA
DN IND23249825
TI Advances and prospects for subunit **vaccines** against protozoa of
veterinary importance.
AU Jenkins, M.C.
AV DNAL (SF810.V4)
SO Veterinary parasitology, Nov 22, 2001. Vol. 101, No. 3/4. p. 291-310
Publisher: Amsterdam, The Netherlands : Elsevier Science B.V.
CODEN: VPARDI; ISSN: 0304-4017
NTE In the special issue: Advances in Molecular Parasitology / edited by D.S.
Zarlenga and T.G. Geary.
Includes references
CY Netherlands
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L11 ANSWER 2 OF 65 AGRICOLA
AN 2001:81245 AGRICOLA
DN IND23235492
TI Control of coccidiosis in chickens by vaccination.
AU Vermeulen, A.N.; Schaap, D.C.; Schetters, T.P.M.
AV DNAL (SF810.V4)
SO Veterinary parasitology, Sept 12, 2001. Vol. 100, No. 1/2. p. 13-20
Publisher: Amsterdam, The Netherlands : Elsevier Science B.V.
CODEN: VPARDI; ISSN: 0304-4017
NTE In the special issue: Vaccination and Immunity against Parasites / edited
by T. Schetters and R. Grencis. Papers presented at the 8th European
Multicollloquium of Parasitology, Sept. 10-14, 2000, Poznan, Poland.
Includes references
CY Netherlands
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L11 ANSWER 3 OF 65 AGRICOLA
AN 2001:81003 AGRICOLA
DN IND23234923

TI Immunization against coccidiosis in pheasants with low-dose live sporulated oocysts of *Eimeria colchici*.
 AU Liou, C.T.; Wang, J.S.; Ooi, H.K.
 AV DNAL (SF995.A1A9)
 SO Avian pathology, Aug 2001. Vol. 30, No. 4. p. 283-295
 Publisher: Oxfordshire : Carfax Publishing Ltd.
 CODEN: AVPADN; ISSN: 0307-9457
 NTE Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 4 OF 65 AGRICOLA
 AN 2001:80195 AGRICOLA
 DN IND23232823
 TI The origins and biological significance of the coccidial lesions that occur in chickens vaccinated with a live attenuated anticoccidial vaccine.
 AU Williams, R.B.; Andrews, S.J.
 AV DNAL (SF995.A1A9)
 SO Avian pathology, June 2001. Vol. 30, No. 3. p. 215-220
 Publisher: Oxfordshire : Carfax Publishing Ltd.
 CODEN: AVPADN; ISSN: 0307-9457
 NTE Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 5 OF 65 AGRICOLA
 AN 2001:64043 AGRICOLA
 DN IND23222941
 TI Characterization of recombinant scFv antibody reactive with an apical antigen of *Eimeria acervulina*.
 AU Min, W.; Kim, J.K.; Lillehoj, H.S.; Sohn, E.J.; Han, J.Y.; Song, K.D.; Lillehoj, E.P.
 AV DNAL (QR53.B56)
 SO Biotechnology letters, June 2001. Vol. 23, No. 12. p. 949-955
 Publisher: Dordrecht : Kluwer Academic Publishers.
 CODEN: BILED3; ISSN: 0141-5492
 NTE Includes references
 CY Netherlands
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 6 OF 65 AGRICOLA
 AN 2001:62540 AGRICOLA
 DN IND23220113
 TI Blackhead disease (*Histomonas meleagridis*) aggravated in broiler chickens by concurrent infection with cecal coccidiosis (*Eimeria tenella*).
 AU McDougald, L.R.; Hu, J.
 AV DNAL (41.8 Av5)
 SO Avian diseases, Apr/June 2001. Vol. 45, No. 2. p. 307-312
 Publisher: Kennett Square, Pa. : American Association of Avian Pathologists Inc.
 CODEN: AVDIAI; ISSN: 0005-2086
 NTE Includes references
 CY Pennsylvania; United States

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
SL Spanish

L11 ANSWER 7 OF 65 AGRICOLA
AN 2001:30327 AGRICOLA
DN IND22305244
TI Avian coccidiosis. A review of acquired intestinal immunity and vaccination strategies.
AU Lillehoj, H.S.; Lillehoj, E.P.
AV DNAL (41.8 Av5)
SO Avian diseases, Apr/June 2000. Vol. 44, No. 2. p. 408-425
Publisher: Kennett Square, Pa. : American Association of Avian Pathologists Inc.
CODEN: AVDIAI; ISSN: 0005-2086
NTE Includes references
CY Pennsylvania; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
SL Spanish

L11 ANSWER 8 OF 65 AGRICOLA
AN 2001:30324 AGRICOLA
DN IND22305241
TI A recombinant **eimeria** protein inducing interferon-gamma production: comparison of different gene expression systems and immunization strategies for vaccination against coccidiosis.
AU Lillehoj, H.S.; Choi, K.D.; Jenkins, M.C.; Vakharia, V.N.; Song, K.D.; Han, J.Y.; Lillehoj, E.P.
AV DNAL (41.8 Av5)
SO Avian diseases, Apr/June 2000. Vol. 44, No. 2. p. 379-389
Publisher: Kennett Square, Pa. : American Association of Avian Pathologists Inc.
CODEN: AVDIAI; ISSN: 0005-2086
NTE Includes references
CY Pennsylvania; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
SL Spanish

L11 ANSWER 9 OF 65 AGRICOLA
AN 2001:19861 AGRICOLA
DN IND22295842
TI Responses of chickens to a recombinant refractile body antigen of **Eimeria tenella** administered using various immunizing strategies.
AU Kopko, S.H.; Martin, D.S.; Barta, J.R.
AV DNAL (47.8 Am33P)
SO Poultry science, Mar 2000. Vol. 79, No. 3. p. 336-342
Publisher: Savoy, IL : Poultry Science Association, Inc.
CODEN: POSCAL; ISSN: 0032-5791
NTE Includes references
CY Illinois; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 10 OF 65 AGRICOLA
AN 2000:63193 AGRICOLA

DN IND22069397
 TI Practical use of **vaccines** for the control of coccidiosis in the chicken.
 AU Chapman, H.D.
 AV DNAL (47.8 W89)
 SO World's poultry science journal, Mar 2000. Vol. 56, No. 1. p. 7-20
 Publisher: Beekbergen, The Netherlands : World's Poultry Science Association.
 CODEN: WPSJAO; ISSN: 0043-9339
 NTE Includes references
 CY Netherlands
 DT Article; Law
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 11 OF 65 AGRICOLA
 AN 2000:62042 AGRICOLA
 DN IND22067962
 TI A gel delivery system for coccidiosis **vaccine**: Uniformity of distribution of oocysts.
 AU Dasgupta, T.; Lee, E.H.
 AV DNAL (41.8 R3224)
 SO The Canadian veterinary journal = La revue veterinaire canadienne, Aug 2000. Vol. 41, No. 8. p. 613-616
 Publisher: Ottawa : Canadian Veterinary Medical Association, c1978-
 ISSN: 0008-5286
 NTE Includes references
 CY Canada; Ontario
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
 SL French

L11 ANSWER 12 OF 65 AGRICOLA
 AN 2000:56657 AGRICOLA
 DN IND22065457
 TI Anticoccidial vaccination of broiler chickens in various management programmes: relationship between oocyst accumulation in litter and the development of protective immunity.
 AU Williams, R.B.; Andrews, S.J.; Johnson, J.D.
 AV DNAL (SF601.V38)
 SO Veterinary research communications, July 2000. Vol. 24, No. 5. p. 309-325
 Publisher: Dordrecht, The Netherlands : Kluwer Academic Publishers.
 CODEN: VRCODX; ISSN: 0165-7380
 NTE Includes references
 CY Netherlands
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 13 OF 65 AGRICOLA
 AN 2000:46513 AGRICOLA
 DN IND22045850
 TI Effects of dietary protein on restrict-fed broiler breeder pullets during a coccidial challenge.
 AU Yaissle, J.E.; Morishita, T.Y.; Lilburn, M.S.
 CS Ohio State University, Wooster.
 SO Poultry science, Oct 1999. Vol. 78, No. 10. p. 1385-1390
 Publisher: Savoy, IL : Poultry Science Association, Inc.
 CODEN: POSCAL; ISSN: 0032-5791

NTE Includes references
 CY Illinois; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 14 OF 65 AGRICOLA
 AN 2000:40178 AGRICOLA
 DN IND22039070
 TI Vaccination against *Eimeria* tenella infection using a fraction of *E. tenella* sporozoites selected by the capacity to activate T cells.
 AU Breed, D.G.J.; Schetters, T.P.M.; Verhoeven, N.A.P.; Boot-Groenink, A.; Dorrestein, J.; Vermeulen, A.N.
 CS Intervet International BV, Boxmeer, Netherlands.
 AV DNAL (QH547.I55)
 SO International journal for parasitology, Aug 1999. Vol. 29, No. 8. p. 1231-1240
 Publisher: Oxford : Elsevier Science Ltd.
 CODEN: IJPYBT; ISSN: 0020-7519

NTE In the special issue "COST820: Vaccines against animal coccidiosis" / edited by A.M. Tenter and M.W. Shirley. Proceedings of a workshop held October 22-25, 1998, Toledo, Spain.
 Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 15 OF 65 AGRICOLA
 AN 1999:72364 AGRICOLA
 DN IND22008565
 TI The efficacy and economic benefits of Paracox, a live attenuated anticoccidial vaccine, in commercial trials with standard broiler chickens in the United Kingdom.
 AU Williams, R.B.; Carlyle, W.W.H.; Bond, D.R.; Brown, I.A.G.
 CS Schering-Plough Animal Health, Middlesex, UK.
 AV DNAL (QH547.I55)
 SO International journal for parasitology, Feb 1999. Vol. 29, No. 2. p. 341-355
 Publisher: Oxford : Elsevier Science Ltd.
 CODEN: IJPYBT; ISSN: 0020-7519

NTE Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 16 OF 65 AGRICOLA
 AN 1999:47636 AGRICOLA
 DN IND21988968
 TI Identification of seven *Eimeria* species in Swedish domestic fowl.
 AU Thebo, P.; Lunden, A.; Ugglä, A.; Hooshmand-Rao, P.
 CS Swedish University of Agricultural Sciences, Uppsala, Sweden.
 AV DNAL (SF995.A1A9)
 SO Avian pathology, Dec 1998. Vol. 27, No. 6. p. 613-617
 Publisher: Oxfordshire : Carfax Publishing Company.
 CODEN: AVPADN; ISSN: 0307-9457

NTE Includes references
 CY England; United Kingdom
 DT Article

FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 17 OF 65 AGRICOLA
 AN 1999:23040 AGRICOLA
 DN IND21973080
 TI Recombination chicken interferon-gamma-mediated inhibition of *Eimeria tenella* development in vitro and reduction of oocyst production and body weight loss following *eimeria* acervulina challenge infection.
 AU Lillehoj, H.S.; Choi, K.D.
 CS USDA, ARS, Livestock and Poultry Sciences Institute, Beltsville, MD.
 AV DNAL (41.8 Av5)
 SO Avian diseases, Apr/June 1998. Vol. 42, No. 2. p. 307-314
 Publisher: Kennett Square, Pa. : American Association of Avian Pathologists Inc.
 CODEN: AVDIAI; ISSN: 0005-2086
 NTE Includes references
 CY Pennsylvania; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
 SL Spanish

L11 ANSWER 18 OF 65 AGRICOLA
 AN 1999:16060 AGRICOLA
 DN IND21967192
 TI Progress in recombinant **vaccine** development against coccidiosis: a review and prospects into the next millennium.
 AU Vermeulen, A.N.
 CS Intervet International BV, The Netherlands.
 AV DNAL (QH547.I55)
 SO International journal for parasitology, July 1998. Vol. 28, No. 7. p. 1121-1130
 Publisher: Oxford : Elsevier Science Ltd.
 CODEN: IJPYBT; ISSN: 0020-7519
 NTE Paper presented at the VII International Coccidiosis Conference held September 1-7, 1997, Oxford, UK.
 Includes references
 CY England; United Kingdom
 DT Article; Law
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 19 OF 65 AGRICOLA
 AN 1999:16058 AGRICOLA
 DN IND21967189
 TI Progress on developing a recombinant coccidiosis **vaccine**.
 AU Jenkins, M.C.
 CS LPSI, ARS, USDA, Beltsville, MD.
 AV DNAL (QH547.I55)
 SO International journal for parasitology, July 1998. Vol. 28, No. 7. p. 1111-1119
 Publisher: Oxford : Elsevier Science Ltd.
 CODEN: IJPYBT; ISSN: 0020-7519
 NTE Paper presented at the VII International Coccidiosis Conference held September 1-7, 1997, Oxford, UK.
 Includes references
 CY England; United Kingdom
 DT Article; Law
 FS Non-U.S. Imprint other than FAO

LA English

L11 ANSWER 20 OF 65 AGRICOLA

AN 1999:16055 AGRICOLA

DN IND21967186

TI Use of live oocyst **vaccines** in the control of avian coccidiosis:
experimental studies and field trials.

AU Danforth, H.D.

CS USDA, ARS, Parasite Biology and Epidemiology Laboratory, Beltsville, MD.

AV DNAL (QH547.I55)

SO International journal for parasitology, July 1998. Vol. 28, No. 7. p.
1099-1109

Publisher: Oxford : Elsevier Science Ltd.

CODEN: IJPYBT; ISSN: 0020-7519

NTE Paper presented at the VII International Coccidiosis Conference held
September 1-7, 1997, Oxford, UK.
Includes references

CY England; United Kingdom

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L11 ANSWER 21 OF 65 AGRICOLA

AN 1999:16054 AGRICOLA

DN IND21967184

TI Epidemiological aspects of the use of live anticoccidial **vaccines**
for chickens.

AU Williams, R.B.

CS Schering-Plough Animal Health, Middlesex, UK.

AV DNAL (QH547.I55)

SO International journal for parasitology, July 1998. Vol. 28, No. 7. p.
1089-1098

Publisher: Oxford : Elsevier Science Ltd.

CODEN: IJPYBT; ISSN: 0020-7519

NTE Paper presented at the VII International Coccidiosis Conference held
September 1-7, 1997, Oxford, UK.
Includes references

CY England; United Kingdom

DT Article; Law

FS Non-U.S. Imprint other than FAO

LA English

L11 ANSWER 22 OF 65 AGRICOLA

AN 1999:16047 AGRICOLA

DN IND21967176

TI Role of T lymphocytes and cytokines in coccidiosis.

AU Lillehoj, H.S.

CS USDA, ARS, Livestock and Poultry Sciences Institute, Beltsville, MD.

AV DNAL (QH547.I55)

SO International journal for parasitology, July 1998. Vol. 28, No. 7. p.
1071-1081

Publisher: Oxford : Elsevier Science Ltd.

CODEN: IJPYBT; ISSN: 0020-7519

NTE Paper presented at the VII International Coccidiosis Conference held
September 1-7, 1997, Oxford, UK.
Includes references

CY England; United Kingdom

DT Article; Law

FS Non-U.S. Imprint other than FAO

LA English

L11 ANSWER 23 OF 65 AGRICOLA
 AN 1999:16044 AGRICOLA
 DN IND21967173
 TI Genetic analysis of the essential components of the immunoprotective response to infection with *Eimeria vermiciformis*.
 AU Smith, A.L.; Hayday, A.C.
 CS Yale University, New Haven, CT.
 AV DNAL (QH547.I55)
 SO International journal for parasitology, July 1998. Vol. 28, No. 7. p. 1061-1069
 Publisher: Oxford : Elsevier Science Ltd.
 CODEN: IJPYBT; ISSN: 0020-7519
 NTE Paper presented at the VII International Coccidiosis Conference held September 1-7, 1997, Oxford, UK.
 Includes references
 CY England; United Kingdom
 DT Article; Law
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 24 OF 65 AGRICOLA
 AN 1999:8221 AGRICOLA
 DN IND21960309
 TI Detection of *Eimeria acervulina* using the polymerase chain reaction.
 AU Molloy, J.B.; Eaves, F.W.; Jeston, P.J.; Minchin, C.M.; Stewart, N.P.; Lew, A.E.; Jorgensen, W.K.
 CS Queensland Department of Primary Industries, Moorooka, Queensland, Australia.
 AV DNAL (41.8 Av5)
 SO Avian diseases, Jan/Mar 1998. Vol. 42, No. 1. p. 119-123
 Publisher: Kennett Square, Pa. : American Association of Avian Pathologists Inc.
 CODEN: AVDIAI; ISSN: 0005-2086
 NTE Includes references
 CY Pennsylvania; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
 SL Spanish

L11 ANSWER 25 OF 65 AGRICOLA
 AN 1998:76723 AGRICOLA
 DN IND21643507
 TI Control of coccidiosis: lessons from other sporozoa.
 AU Cox, F.E.G.
 CS King's College London, London, UK.
 AV DNAL (QH547.I55)
 SO International journal for parasitology, Jan 1998. Vol. 28, No. 1. p. 165-179
 Publisher: Oxford : Elsevier Science Ltd.
 CODEN: IJPYBT; ISSN: 0020-7519
 NTE Paper presented at the 10th International Congress of Protozoology held July 21-25, 1997, Sydney, Australia.
 Includes references
 CY England; United Kingdom
 DT Article; Law
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 26 OF 65 AGRICOLA

AN 1998:37938 AGRICOLA
 DN IND20904292
 TI Effects of combined treatment with recombinant bovine somatotropin and immunization with live oocysts on performance of broiler chicks raised on coccidia-seeded floor pens.
 AU Allen, P.C.; Danforth, H.D.
 AV DNAL (47.8 Am33P)
 SO Poultry science, Oct 1997. Vol. 76, No. 10. p. 1349-1354
 Publisher: Savoy, IL : Poultry Science Association, Inc.
 CODEN: POSCAL; ISSN: 0032-5791
 NTE Includes references
 CY Illinois; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 27 OF 65 AGRICOLA
 AN 1998:30471 AGRICOLA
 DN IND20800794
 TI Protection against coccidiosis in outbred chickens elicited by gamma-irradiated *Eimeria* maxima.
 AU Jenkins, M.C.; Chute, M.B.; Danforth, H.D.
 AV DNAL (41.8 Av5)
 SO Avian diseases, July/Sept 1997. Vol. 41, No. 3. p. 702-708
 Publisher: Kennett Square, Pa. : American Association of Avian Pathologists Inc.
 CODEN: AVDIAI; ISSN: 0005-2086
 NTE Includes references
 CY Pennsylvania; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
 SL Spanish

L11 ANSWER 28 OF 65 AGRICOLA
 AN 1998:27965 AGRICOLA
 DN IND20643552
 TI Effects of components of *Artemisia annua* on coccidia infections in chickens.
 AU Allen, P.C.; Lyon, J.; Danforth, H.D.
 SO Poultry science, Aug 1997. Vol. 76, No. 8. p. 1156-1163
 Publisher: Savoy, IL : Poultry Science Association, Inc.
 CODEN: POSCAL; ISSN: 0032-5791
 NTE Includes references
 CY Illinois; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 29 OF 65 AGRICOLA
 AN 1998:27964 AGRICOLA
 DN IND20643551
 TI Assessment of recombinant bovine somatotropin as an immunomodulator during avian coccidiosis: immunization with living oocysts.
 AU Allen, P.C.; Danforth, H.D.; Gregory, S.A.; Comens-Keller, P.
 SO Poultry science, Aug 1997. Vol. 76, No. 8. p. 1150-1155
 Publisher: Savoy, IL : Poultry Science Association, Inc.
 CODEN: POSCAL; ISSN: 0032-5791
 NTE Includes references
 CY Illinois; United States

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 30 OF 65 AGRICOLA
AN 1998:5437 AGRICOLA
DN IND20610552
TI Immunogenic characterization of a tissue culture-derived vaccine that affords partial protection against avian coccidiosis.
AU Brake, D.A.; Strang, G.; Lineberger, J.E.; Fedor, C.H.; Clare, R.; Banas, T.A.; Miller, T.
CS Pfizer Inc., Groton, CT.
SO Poultry science, July 1997. Vol. 76, No. 7. p. 974-983
Publisher: Savoy, IL : Poultry Science Association, Inc.
CODEN: POSCAL; ISSN: 0032-5791
NTE Includes references
CY Illinois; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 31 OF 65 AGRICOLA
AN 97:82027 AGRICOLA
DN IND20604543
TI Analysis of immunological cross-protection and sensitivities to anticoccidial drugs among five geographical and temporal strains of *Eimeria maxima*.
AU Martin, A.G.; Danforth, H.D.; Barta, J.R.; Fernando, M.A.
CS USDA, ARS, Livestock and Poultry Science Institute, Beltsville, MD.
SO International journal for parasitology, May 1997. Vol. 27, No. 5. p. 527-533
Publisher: Oxford : Elsevier Science Ltd.
CODEN: IJPYBT; ISSN: 0020-7519
NTE Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L11 ANSWER 32 OF 65 AGRICOLA
AN 97:68890 AGRICOLA
DN IND20593486
TI Characterization of a chicken monoclonal antibody that recognizes the apical complex of *Eimeria acervulina* sporozoites and partially inhibits sporozoite invasion of CD8+ T lymphocytes in vitro.
AU Sasai, K.; Lillehoj, H.S.; Matsuda, H.; Wergin, W.P.
CS Parasite Immunobiology Laboratory, Livestock and Poultry Sciences Institute, USDA, ARS, Beltsville, MD.
AV DNAL (448.8 J824)
SO The Journal of parasitology, Feb 1996. Vol. 82, No. 1. p. 82-87
Publisher: Lawrence, Kan. : American Society of Parasitologists, 1914
CODEN: JOPAA2; ISSN: 0022-3395
NTE Includes references
CY Kansas; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 33 OF 65 AGRICOLA
AN 97:45545 AGRICOLA
DN IND20573781

TI Administration of a coccidiosis vaccine to day-old turkeys via the eye and development of immunity to *Eimeria* species.
 AU Chapman, H.D.
 CS University of Arkansas, Fayetteville, AR.
 SO Poultry science, Dec 1996. Vol. 75, No. 12. p. 1496-1497
 Publisher: Savoy, IL : Poultry Science Association, Inc.
 CODEN: POSCAL; ISSN: 0032-5791
 NTE Includes references
 CY Illinois; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 34 OF 65 AGRICOLA
 AN 97:45539 AGRICOLA
 DN IND20573775
 TI Effect of roxarsone and bacitracin methylene disalicylate on the development of immunity to *Eimeria* in broilers given a live coccidiosis vaccine.
 AU Chapman, H.D.; Fitzcoy, S.H.
 CS University of Arkansas, Fayetteville, AR.
 SO Poultry science, Dec 1996. Vol. 75, No. 12. p. 1488-1492
 Publisher: Savoy, IL : Poultry Science Association, Inc.
 CODEN: POSCAL; ISSN: 0032-5791
 NTE Includes references
 CY Illinois; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 35 OF 65 AGRICOLA
 AN 97:38930 AGRICOLA
 DN IND20568337
 TI Characterization and immunoprotective properties of a monoclonal antibody against the major oocyst wall protein of *Eimeria tenella*.
 AU Karim, M.J.; Basak, S.C.; Trees, A.J.
 CS Bangladesh Agricultural University, Mymensingh, Bangladesh.
 SO Infection and immunity, Apr 1996. Vol. 64, No. 4. p. 1227-1232
 Publisher: Washington, D.C., American Society for Microbiology
 ISSN: 0019-9567
 NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 36 OF 65 AGRICOLA
 AN 97:3971 AGRICOLA
 DN IND20541001
 TI Vaccines against protozoal diseases of veterinary importance.
 AU Cornelissen, A.W.C.A.; Schetters, T.P.M.
 CS Utrecht University, Utrecht, The Netherlands.
 AV DNAL (QR180.F46)
 SO FEMS immunology and medical microbiology, Sept 1996. Vol. 15, No. 2/3. p. 61-72
 Publisher: Amsterdam : Elsevier Science Publishers, B.V. on behalf of the Federation of European Microbiological Societies, 1993-
 CODEN: FIMIEV; ISSN: 0928-8244
 NTE Includes references
 CY Netherlands
 DT Article; Law

FS Non-U.S. Imprint other than FAO
LA English

L11 ANSWER 37 OF 65 AGRICOLA

AN 96:46287 AGRICOLA

DN IND20524936

TI A live attenuated **vaccine** for the control of avian coccidiosis:
trials in broiler breeders and replacement layer flocks in the United
Kingdom.

AU Shirley, M.W.; Bushell, A.C.; Bushell, J.E.; McDonald, J.E.; Roberts, B.
CS Institute for Animal Health, Comptom, Newbury.

AV DNAL (41.8 V641)

SO The Veterinary record : journal of the British Veterinary Association,
Oct

28, 1995. Vol. 137, No. 18. p. 453-457

Publisher: London : The British Veterinary Association.
CODEN: VETRAX; ISSN: 0042-4900

NTE Includes references

CY England; United Kingdom

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L11 ANSWER 38 OF 65 AGRICOLA

AN 96:17791 AGRICOLA

DN IND20503377

TI Cytokines and immunological control of **Eimeria** spp.
AU Ovington, K.S.; Alleva, L.M.; Kerr, E.A.

CS Australian National University, Canberra, Australia.
AV DNAL (QH547.I55)

SO International journal for parasitology, Nov 1995. Vol. 25, No. 11. p.
1331-1351

Publisher: Oxford : Elsevier Science Ltd.

CODEN: IJPYBT; ISSN: 0020-7519

NTE Paper presented at the Annual Meeting of the Australian Society for
Parasitology held September 26-30, 1994, Nelson Bay, Australia.
Includes references

CY England; United Kingdom

DT Article; Law

FS Non-U.S. Imprint other than FAO

LA English

L11 ANSWER 39 OF 65 AGRICOLA

AN 96:331 AGRICOLA

DN IND20488403

TI The effect of in ovo oocyst or sporocyst inoculation on response to
subsequent coccidial challenge.

AU Watkins, K.L.; Brooks, M.A.; Jeffers, T.K.

CS Lilly Corporate Center, Indianapolis, IN.

AV DNAL (47.8 Am33P)

SO Poultry science, Oct 1995. Vol. 74, No. 10. p. 1597-1602

Publisher: Champaign, IL : Poultry Science Association, 1921-
CODEN: POSCAL; ISSN: 0032-5791

NTE Includes references

CY Illinois; United States

DT Article

FS U.S. Imprints not USDA, Experiment or Extension

LA English

L11 ANSWER 40 OF 65 AGRICOLA

AN 95:44871 AGRICOLA

DN IND20469651
 TI Maternal transmission of immunity to *Eimeria* maxima: western blot analysis of protective antibodies induced by infection.
 AU Smith, N.C.; Wallach, M.; Miller, C.M.D.; Braun, R.; Eckert, J.
 CS The Bancroft Centre, Brisbane, Queensland, Australia.
 AV DNAL (QR1.I57)
 SO Infection and immunity, Nov 1994. Vol. 62, No. 11. p. 4811-4817
 Publisher: Washington, D.C., American Society for Microbiology
 ISSN: 0019-9567
 NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 41 OF 65 AGRICOLA
 AN 95:39112 AGRICOLA
 DN IND20465493
 TI High-resolution mapping of B-cell epitopes within an antigenic sequence from *Eimeria* tenella.
 AU Talebi, A.; Mulcahy, G.
 CS University College Dublin, Dublin, Ireland.
 AV DNAL (QR1.I57)
 SO Infection and immunity, Oct 1994. Vol. 62, No. 10. p. 4202-4207
 Publisher: Washington, D.C., American Society for Microbiology
 ISSN: 0019-9567
 NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 42 OF 65 AGRICOLA
 AN 94:47518 AGRICOLA
 DN IND20399739
 TI *Eimeria* acervulina: cloning of a cDNA encoding an immunogenic region of several related merozoite surface and rhoptry proteins.
 AU Jenkins, M.C.; Lillehoj, H.S.; Barta, J.R.; Danforth, H.D.; Strohlein, D.A.
 AV DNAL (436.8 Ex7)
 SO Experimental parasitology, Apr 1990. Vol. 70, No. 3. p. 353-362
 Publisher: Orlando, Fla. : Academic Press.
 CODEN: EXPAAA; ISSN: 0014-4894
 NTE Includes references
 CY Florida; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 43 OF 65 AGRICOLA
 AN 94:43835 AGRICOLA
 DN IND20398192
 TI Sensitivity of field isolates of *Eimeria* to monensin following the use of a coccidiosis vaccine in broiler chickens.
 AU Chapman, H.D.
 AV DNAL (47.8 Am33P)
 SO Poultry science, Mar 1994. Vol. 73, No. 3. p. 476-478
 Publisher: Champaign, IL : Poultry Science Association, 1921-
 CODEN: POSCAL; ISSN: 0032-5791
 NTE Includes references
 CY Illinois; United States

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 44 OF 65 AGRICOLA
AN 93:55802 AGRICOLA
DN IND93036266
TI Coccidia: a review of recent advances on immunity and vaccine development.
AU Lillehoj, H.S.; Trout, J.M.
CS Protozoan Diseases Laboratory, USDA, ARS, Beltsville, MD
AV DNAL (SF995.A1A9)
SO Avian pathology : journal of the W.V.P.A, 1993. Vol. 22, No. 1. p. 3-31
Publisher: Oxfordshire : Carfax Publishing Company.
CODEN: AVPADN; ISSN: 0307-9457
NTE Literature review.
Includes references.
DT Article; (SURVEY OF LITURATURE)
FS Non-U.S. Imprint other than FAO
LA English
SL French; German; Spanish

L11 ANSWER 45 OF 65 AGRICOLA
AN 93:18156 AGRICOLA
DN IND93005726
TI Cross-protection against four species of chicken coccidia with a single recombinant antigen.
AU Crane, M.S.J.; Goggin, B.; Pellegrino, R.M.; Ravino, O.J.; Lange, C.; Karkhanis, Y.D.; Kirk, K.E.; Chakraborty, P.R.
CS Merck, Sharp and Dohme Research Laboratories, Rahway, NJ.
AV DNAL (QR1.I57)
SO Infection and immunity, Apr 1991. Vol. 59, No. 4. p. 1271-1277
Publisher: Washington, D.C. : American Society for Microbiology.
CODEN: INFIBR; ISSN: 0019-9567
NTE Includes references.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 46 OF 65 AGRICOLA
AN 93:15900 AGRICOLA
DN IND93003209
TI Purification and characterization of a protective antigen from *Eimeria tenella*.
AU Karkhanis, Y.D.; Nollstadt, K.A.; Bhogal, B.S.; Ravino, O.; Pellegrino, R.; Crane, M.S.; Murray, P.K.; Turner, M.J.
CS Merck Sharp & Dohme Research Laboratories, Rahway, NJ
AV DNAL (QR1.I57)
SO Infection and immunity, Mar 1991. Vol. 59, No. 3. p. 983-989
Publisher: Washington, D.C. : American Society for Microbiology.
CODEN: INFIBR; ISSN: 0019-9567
NTE Includes references.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 47 OF 65 AGRICOLA
AN 92:112733 AGRICOLA
DN IND92067969
TI Modelling coccidial infection in chickens: emphasis on vaccination by in-feed delivery of oocysts.

AU Parry, S.; Barratt, M.E.J.; Jones, S.; McKee, S.; Murray, J.D.
 CS Unilever Research, Bedford
 AV DNAL (442.8 J8223)
 SO Journal of theoretical biology, Aug 21, 1992. Vol. 157, No. 4. p.
 407-425
 Publisher: London : Academic Press.
 CODEN: JTBIAP; ISSN: 0022-5193
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 48 OF 65 AGRICOLA
 AN 91:38288 AGRICOLA
 DN IND91019212
 TI Protective immunization against the intestinal parasite *Eimeria*
 acervulina with recombinant coccidial antigen.
 AU Jenkins, M.C.; Castle, M.D.; Danforth, H.D.
 CS Protozoan Diseases Laboratory, ARS, USDA, Beltsville, MD
 AV DNAL (47.8 AM33P)
 SO Poultry science, Mar 1991. Vol. 70, No. 3. p. 539-547 ill
 Publisher: Champaign, Ill. : Poultry Science Association.
 CODEN: POSCAL; ISSN: 0032-5791
 NTE Includes references.
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 49 OF 65 AGRICOLA
 AN 89:107995 AGRICOLA
 DN IND89062299
 TI *Coccidia vaccines*.
 AU Danforth, H.D.; Augustine, P.C.
 AV DNAL (QR189.5.P76V47)
 SO [Veterinary protozoan and hemoparasite vaccines / editor, I.G. Wright],
 p.
 165-175 ill
 Publisher: Boca Raton, Fla. : CRC Press, c1989.
 ISBN: 0849347572.
 NTE Literature review.
 Includes references.
 DT Article; (SURVEY OF LITURATURE)
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 50 OF 65 AGRICOLA
 AN 89:89451 AGRICOLA
 DN IND89048043
 TI Development of a live attenuated *vaccine* against coccidiosis of
 poultry.
 AU Shirley, M.W.
 CS Agricultural and Food Research Council, Houghton, Huntingdon,
 Cambridgeshire
 AV DNAL (RC119.7.P4)
 SO Parasite immunology, Mar 1989. Vol. 11, No. 2. p. 117-124
 Publisher: Oxford : Blackwell Scientific Publications.
 CODEN: PAIMD8; ISSN: 0141-9838
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 51 OF 65 AGRICOLA
 AN 89:86763 AGRICOLA
 DN IND89044701
 TI Characterization and vaccine potential of a novel recombinant
 coccidial antigen.
 AU Miller, G.A.; Bhogal, B.S.; McCandliss, R.; Strausberg, R.L.; Jessee,
 E.J.; Anderson, A.C.; Fuchs, C.K.; Nagle, J.; Likel, M.H.; Strasser, J.M.
 CS A.H. Robins Co., Richmond, VA
 AV DNAL (QR1.I57)
 SO Infection and immunity, July 1989. Vol. 57, No. 7. p. 2014-2020
 Publisher: Washington, D.C. : American Society for Microbiology.
 CODEN: INFIBR; ISSN: 0019-9567
 NTE Includes references.
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 52 OF 65 AGRICOLA
 AN 89:69366 AGRICOLA
 DN IND89035763
 TI Field vaccination of broilers against coccidiosis.
 AU Bedrník, P.; Kucera, J.; Firmanova, A.; Jurkovic, P.
 CS Research Institute of Feed Supplements and Veterinary Drugs, Nr Prague,
 Czechoslovakia
 AV DNAL (SF995.A1A9)
 SO Avian pathology : journal of the W.V.P.A, 1989. Vol. 18, No. 2. p.
 255-264
 Publisher: Cambridge : World Veterinary Poultry Association.
 CODEN: AVPADN; ISSN: 0307-9457
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
 SL French; German; Spanish

L11 ANSWER 53 OF 65 AGRICOLA
 AN 89:47990 AGRICOLA
 DN IND89021214
 TI Antigenic proteins of *Eimeria* maxima gametocytes: cell-free
 translation and detection with recovered chicken serum.
 AU Mencher, D.; Pugatsch, T.; Wallach, M.
 AV DNAL (436.8 EX7)
 SO Experimental parasitology, Jan 1989. Vol. 68, No. 1. p. 40-48 ill
 Publisher: Duluth, Minn. : Academic Press.
 CODEN: EXPAAA; ISSN: 0014-4894
 NTE Includes references.
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L11 ANSWER 54 OF 65 AGRICOLA
 AN 89:21872 AGRICOLA
 DN IND89000690
 TI Heat shock-like polypeptides of the sporozoites and merozoites of
Eimeria bovis.
 AU Robertson, N.P.; Reese, R.T.; Henson, J.M.; Speer, C.A.
 AV DNAL (448.8 J824)
 SO The Journal of parasitology, Dec 1988. Vol. 74, No. 6. p. 1004-1008 ill
 Publisher: Lawrence, Kan. : American Society of Parasitologists.
 CODEN: JOPAA2; ISSN: 0022-3395

NTE Includes references.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 55 OF 65 AGRICOLA
AN 88:58737 AGRICOLA
DN IND88002740
TI Live attenuated coccidiosis **vaccine**: selection of a second precocious line of *Eimeria* maxima.
AU Shirley, M.W.; Bellatti, M.A.
AV DNAL (41.8 R312)
SO Research in veterinary science, Jan 1988. Vol. 44, No. 1. p. 25-28
Publisher: London : British Veterinary Association.
CODEN: RV TSA9; ISSN: 0034-5288
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L11 ANSWER 56 OF 65 AGRICOLA
AN 87:64756 AGRICOLA
DN IND87038680
TI *Eimeria* tenella--in vivo immunization studies with sporozoite antigen.
AU Murray, P.K.; Bhogal, B.S.; Crane, M. St. J.; MacDonald, T.T.
AV DNAL (SF792.G4 1985)
SO [Research in avian coccidiosis : proceedings of the Georgia Coccidiosis Conference, November 19-21, 1985 / edited by Larry R. McDougald, Leonard P. Joyner, Peter L. Long], p. 564-573 ill
Publisher: [Athens, Georgia?] : University of Georgia, Dept. of Poultry Science, 1986.
NTE Includes references.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 57 OF 65 AGRICOLA
AN 87:20803 AGRICOLA
DN IND87007783
TI Monoclonal antibody technology in the development of **vaccines** for livestock parasites.
AU Gamble, H.R.
AV DNAL (49 J82)
SO Journal of animal science, Jan 1987. Vol. 64, No. 1. p. 328-336 ill
Publisher: Champaign, Ill. : American Society of Animal Science.
CODEN: JANSAG; ISSN: 0021-8812
NTE Includes references.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L11 ANSWER 58 OF 65 AGRICOLA
AN 85:53280 AGRICOLA
DN IND85041066
TI *Eimeria* praecox: Selection and characteristics of precocious lines.
AU Shirley, M.W.; McDonald, V.; Chapman, H.D.; Millard, B.J.
AV DNAL (SF995.A1A9)
SO Avian pathology, 1984. Vol. 13, No. 4. p. 669-682 ill
Publisher: Cambridge : World Veterinary Poultry Association.

CODEN: AVPADN; ISSN: 0307-9457

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

SL French; German

L11 ANSWER 59 OF 65 AGRICOLA

AN 85:53279 AGRICOLA

DN IND85041065

TI **Eimeria** necatrix: selection and characteristics of a precocious (and attenuated) line.

AU Shirley, M.W.; Bellatti, M.A.

AV DNAL (SF995.A1A9)

SO Avian pathology, 1984. Vol. 13, No. 4. p. 657-668 ill
 Publisher: Cambridge : World Veterinary Poultry Association.
 CODEN: AVPADN; ISSN: 0307-9457

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

SL French; German

L11 ANSWER 60 OF 65 AGRICOLA

AN 84:12575 AGRICOLA

DN PAR83009664

TI Attenuation of **Eimeria** necatrix and E. tenella of U.S. origin by serial embryo passage.

AU Gore, T.C.; Long, P.L.; Kogut, M.L.; Johnson, J.

AV DNAL (41.8 AV5)

SO Avian diseases., July-Sept 1983 Vol. 27, No. 3. p. 569-576
 Publisher: Kennett Square : American Association of Avian Pathologists.
 ISSN: 0005-2086

DT Article

FS U.S. Imprints not USDA, Experiment or Extension

LA English

L11 ANSWER 61 OF 65 AGRICOLA

AN 84:12496 AGRICOLA

DN PAR83009585

TI The immunisation of young cattle against coccidiosis. Imunizace mladeho skotu proti kokcidioze.

AU Ziegler, K.

AV DNAL (41.9 C333)

SO Veterinarni medicina - Ceskoslovenska akademie zemedelska, Ustav vedeckotechnickych informaci pro zemedelstvi., Nov 1982 Vol. 27, (LV) No. 11. p. 651-656
 Publisher: Praha : Ustav.
 ISSN: 0590-5214

DT Article

FS Non-U.S. Imprint other than FAO

LA Czech

SL English; Russian; German

L11 ANSWER 62 OF 65 AGRICOLA

AN 83:152562 AGRICOLA

DN PAR83006338

TI Further investigation of the pathogenicity, imunogenicity and stability of precocious **Eimeria** acervulina.

AU McDonald, V. s.; Ballingall, S.

AV DNAL (448.8 P21)
 SO Parasitology., June 1983 Vol. 86, No. 3. p. 361-369
 Publisher: Cambridge University Press.
 ISSN: 0031-1820
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L11 ANSWER 63 OF 65 AGRICOLA
 AN 83:122057 AGRICOLA
 DN PAR83001192
 TI Prospects for the control of coccidiosis by immunization.
 AU Long, P.L.; Rose, M.E.
 AV DNAL (47.8 W89)
 SO World's poultry science journal., June 1982 Vol. 38, No. 2. p. 85-96
 Publisher: Aylesbury, World's Poultry Science Association.
 ISSN: 0043-9339
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
 SL French; German; Russian

L11 ANSWER 64 OF 65 AGRICOLA
 AN 82:135584 AGRICOLA
 DN IND82107658
 TI Studies on attenuated coccidial monovalent **vaccine** for chickens
Eimeria spp..
 AU Lee, Y.C.; Fang, B.H.; Chien, C.S.
 AV DNAL (107 T13)
 SO Yen chiu pao kao. = Memoirs of the College of Agriculture, National
 Taiwan
 University - Kuo li T'ai-wan ta hsueh, Nung hsueh yuan., Apr 1980 Vol.
 20, No. 1. p. 75-85
 Publisher: Taipei, China, The College.
 ISSN: 0077-5819
 NTE 16 ref.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA Chinese
 SL English

L11 ANSWER 65 OF 65 AGRICOLA
 AN 82:72932 AGRICOLA
 DN IND82052851
 TI Investigation on chicken coccidial **vaccine**. II. Study on
 attenuated coccidial polyvalent **vaccine Eimeria** sp..
 AU Lee, Y.C.; Fang, B.H.; Tzeng, H.C.
 AV DNAL (SF604.C54)
 SO Chung-hua min kuo shou i hsueh hui tsa chih = Journal of the Chinese
 Society of Veterinary Science., Apr 1981 Vol. 7, No. 1. p. 19-23
 Publisher: Taipei, The Society.
 NTE Includes 15 ref.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA Chinese
 SL English

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(FILE 'HOME' ENTERED AT 08:22:55 ON 22 FEB 2002)

FILE 'BIOSIS' ENTERED AT 08:24:02 ON 22 FEB 2002
L1 399 S ECHINACEA
L2 1864 S COCCIDIOSIS
L3 0 S L1 AND L2

FILE 'MEDLINE' ENTERED AT 08:24:52 ON 22 FEB 2002
L4 0 S L1 AND L2

FILE 'AGRICOLA' ENTERED AT 08:26:32 ON 22 FEB 2002
L5 0 S L3
L6 2807 S EIMERIA
L7 0 S L1 AND L6
L8 11062 S VACCINE
L9 340 S L8 AND L`
L10 0 S L8 AND L1
L11 65 S L6 AND L8

=> s l1 and l11

156 ECHINACEA
1 ECHINACEAS
156 ECHINACEA
(ECHINACEA OR ECHINACEAS)
L12 0 L1 AND L11

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156 ECHINACEA
1 ECHINACEAS
L13 156 ECHINACEA
(ECHINACEA OR ECHINACEAS)

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MISSING OPERATOR L13 1-156

The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> d l13 1-156

L13 ANSWER 1 OF 156 AGRICOLA
AN 2002:7390 AGRICOLA
DN IND23249784
TI **Echinacea**: a natural remedy for the common cold and flu?
AU Thomas, P.R.
AV DNAL (RA784.N8)
SO Nutrition today, Sept/Oct 2001. Vol. 36, No. 5. p. 249-253
Publisher: Hagerstown, Md. : Lippincott Williams & Wilkins.
ISSN: 0029-666X
NTE Includes references
CY Maryland; United States
DT Article; Law
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 2 OF 156 AGRICOLA
AN 2002:6915 AGRICOLA

DN IND23248692
 TI Echinacoside and alkamide distribution in *Echinacea angustifolia*
 root: root depth and growing condition.
 AU Powell, E.E.; Carrier, D.J.; Crowe, T.G.; Bantle, M.R.L.
 AV DNAL (RA784.J68)
 SO Journal of nutraceuticals, functional & medical foods, 2001. Vol. 3, No.
 3. p. 95-106
 Publisher: Binghamton, NY : Pharmaceutical Products Press, an imprint of
 the Haworth Press, Inc., c1997-
 CODEN: JNFMPK; ISSN: 1089-4179
 NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 3 OF 156 AGRICOLA
 AN 2002:3331 AGRICOLA
 DN IND23245404
 TI *Echinacea*--reaping herbal profits.
 AU Wiley, M.K.
 AV DNAL (S441.A475)
 SO AgVentures, Aug/Sept 2001. Vol. 5, No. 4. p. 11-13
 Publisher: Blackwell, OK : Schatz Pub. Group, c1997-
 CY Oklahoma; United States
 DT Article
 FS USDA
 LA English

L13 ANSWER 4 OF 156 AGRICOLA
 AN 2001:82880 AGRICOLA
 DN IND23238912
 TI Methods to overcome seed dormancy in *Echinacea angustifolia* DC.
 AU Macchia, M.; Angelini, L.G.; Ceccarini, L.
 AV DNAL (SB13.S3)
 SO Scientia horticultrurae, July 30, 2001. Vol. 89, No. 4. p. 317-324
 Publisher: Amsterdam : Elsevier Science B.V.
 CODEN: SHRTAH; ISSN: 0304-4238
 NTE Includes references
 CY Netherlands
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 5 OF 156 AGRICOLA
 AN 2001:80723 AGRICOLA
 DN IND23234323
 TI Quantification of root chicoric acid in purple coneflower by near
 infrared
 reflectance spectroscopy.
 AU Gray, D.E.; Roberts, C.A.; Rottinghaus, G.E.; Garrett, H.E.; Pallardy,
 S.G.
 AV DNAL (64.8 C883)
 SO Crop science, July/Aug 2001. Vol. 41, No. 4. p. 1159-1161
 Publisher: Madison, Wis. : Crop Science Society of America, 1961-
 CODEN: CRPSAY; ISSN: 0011-183X
 NTE Includes references
 CY United States; Wisconsin
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 6 OF 156 AGRICOLA
 AN 2001:76753 AGRICOLA
 DN IND23235868
 TI Diseases of **echinacea** in Alberta in 1998.
 AU Chang, K.F.; Howard, R.J.; Hwang, S.F.; Blade, S.F.
 AV DNAL (SB626.C362)
 SO Canadian plant disease survey Inventaire des maladies des plantes au
 Canada, Mar 1999. Vol. 79 p. 109-111
 Publisher: [Ottawa] : Agriculture and Agri-Food Canada, Research Branch,
 1997-
 Gov. Source: Federal
 NTE Includes references
 CY Canada; Ontario
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 7 OF 156 AGRICOLA
 AN 2001:76591 AGRICOLA
 DN IND23235308
 TI The occurrence of damping-off and root rot of **Echinacea** in
 greenhouses of Alberta in 1999.
 AU Chang, K.F.; Howard, R.J.; Blade, S.F.; Hwang, S.F.
 AV DNAL (SB626.C362)
 SO Canadian plant disease survey Inventaire des maladies des plantes au
 Canada, Mar 2000. Vol. 80 p. 90-91
 Publisher: [Ottawa] : Agriculture and Agri-Food Canada, Research Branch,
 1997-
 Gov. Source: Federal
 NTE Includes references
 CY Canada; Ontario
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 8 OF 156 AGRICOLA
 AN 2001:76590 AGRICOLA
 DN IND23235305
 TI Survey of aster yellows of **Echinacea** in Alberta in 1999.
 AU Chang, K.F.; Howard, R.J.; Blade, S.F.; Hwang, S.F.
 AV DNAL (SB626.C362)
 SO Canadian plant disease survey Inventaire des maladies des plantes au
 Canada, Mar 2000. Vol. 80 p. 88-89
 Publisher: [Ottawa] : Agriculture and Agri-Food Canada, Research Branch,
 1997-
 Gov. Source: Federal
 NTE Includes references
 CY Canada; Ontario
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 9 OF 156 AGRICOLA
 AN 2001:69695 AGRICOLA
 DN IND23228602
 TI Diseases of **echinacea** in Alberta in 1997.
 AU Chang, K.F.; Howard, R.J.; Hwang, S.F.; Gaudiel, R.G.; Blade, S.F.
 AV DNAL (SB626.C362)
 SO Canadian plant disease survey Inventaire des maladies des plantes au
 Canada, Apr 1998. Vol. 78 p. 93-95

Publisher: [Ottawa] : Agriculture and Agri-Food Canada, Research Branch,
1997-
Gov. Source: Federal

NTE Includes references
CY Canada; Ontario
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 10 OF 156 AGRICOLA
AN 2001:68776 AGRICOLA
DN IND23225213
TI Effect of handling and storage on alkylamides and cichoric acid in
Echinacea purpurea.
AU Wills, R.B.H.; Stuart, D.L.
SO Journal of the science of food and agriculture, July 2000. Vol. 80, No.
9.
p. 1402-1406
Publisher: West Sussex : John Wiley & Sons Limited.
CODEN: JSFAAE; ISSN: 0022-5142

NTE Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 11 OF 156 AGRICOLA
AN 2001:68564 AGRICOLA
DN IND23224864
TI Methyl jasmonate increases reported alkamides and ketoalkene /ynes in
Echinacea pallida (Asteraceae).
AU Binns, S.E.; Inparajah, I.; Baum, B.R.; Arnason, J.T.
SO Phytochemistry, June 2001. Vol. 57, No. 3. p. 417-420
Publisher: Oxford : Elsevier Science Ltd.
CODEN: PYTCAS; ISSN: 0031-9422

NTE Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 12 OF 156 AGRICOLA
AN 2001:64773 AGRICOLA
DN IND23224028
TI Effects of root drying temperature and moisture content on the levels of
active ingredients in **Echinacea** roots.
AU Li, T.S.C.; Wardle, D.A.
AV DNAL (SB351.H5J68)
SO Journal of herbs, spices & medicinal plants, 2001. Vol. 8, No. 1. p.
15-22
Publisher: Binghamton, NY : The Haworth Herbal Press.
CODEN: JHEPEF; ISSN: 1049-6475

NTE Includes references
CY New York (State); United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 13 OF 156 AGRICOLA
AN 2001:63323 AGRICOLA
DN IND23221880

TI Retention of alkamides in dried *Echinacea purpurea*.
 AU Kim, H.O.; Durance, T.D.; Scaman, C.H.; Kitts, D.D.
 AV DNAL (381 J8223)
 SO Journal of agricultural and food chemistry, Sept 2000. Vol. 48, No. 9. p. 4187-4192
 Publisher: Washington, D.C. : American Chemical Society.
 CODEN: JAFCAU; ISSN: 0021-8561
 NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 14 OF 156 AGRICOLA
 AN 2001:63322 AGRICOLA
 DN IND23221879
 TI Retention of caffeic acid derivatives in dried *Echinacea purpurea*.
 AU Kim, H.O.; Durance, T.D.; Scaman, C.H.; Kitts, D.D.
 AV DNAL (381 J8223)
 SO Journal of agricultural and food chemistry, Sept 2000. Vol. 48, No. 9. p. 4182-4186
 Publisher: Washington, D.C. : American Chemical Society.
 CODEN: JAFCAU; ISSN: 0021-8561
 NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 15 OF 156 AGRICOLA
 AN 2001:61851 AGRICOLA
 DN IND23217902
 TI Ethephon can overcome seed dormancy and improve seed germination in purple coneflower species *Echinacea angustifolia* and *E. pallida*.
 AU Sari, A.O.; Morales, M.R.; Simon, J.E.
 SO HortTechnology, Apr/June 2001. Vol. 11, No. 2. p. 202-205
 Publisher: Alexandria, VA : American Society for Horticultural Science, c1991-
 ISSN: 1063-0198
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 16 OF 156 AGRICOLA
 AN 2001:61846 AGRICOLA
 DN IND23217896
 TI Biosolid residues as soilless media for growing wildflower sod.
 AU Roberts, B.R.; Decker, H.F.; Bagstad, K.J.; Peterson, K.A.
 SO HortTechnology, Apr/June 2001. Vol. 11, No. 2. p. 194-199
 Publisher: Alexandria, VA : American Society for Horticultural Science, c1991-
 ISSN: 1063-0198
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 17 OF 156 AGRICOLA
 AN 2001:57875 AGRICOLA
 DN IND23217492
 TI Use of heteroduplex mobility assay for identification and differentiation of phytoplasmas in the aster yellows group and the clover proliferation group.
 AU Wang, K.; Hiruki, C.
 AV DNAL (464.8 P56)
 SO Phytopathology, June 2001. Vol. 91, No. 6. p. 546-552
 Publisher: St. Paul, Minn. : American Phytopathological Society, 1911-
 CODEN: PHYTAJ; ISSN: 0031-949X
 NTE Includes references
 CY Minnesota; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 18 OF 156 AGRICOLA
 AN 2001:55051 AGRICOLA
 DN CAT11104677
 TI **Echinacea** as an alternative crop.
 AU Adam, Katherine L.
 CS Appropriate Technology Transfer for Rural Areas (Organization)
 AV DNAL (RS165.E4 A33 2000)
 SO [2000] 10 p. : ill. ; 28 cm
 Publisher: Fayetteville, Ark. : ATTRA, [2000]
 Series: Horticulture technical notes (Appropriate Technology Transfer for Rural Areas (Organization))
 NTE Caption title.
 At head of title: ATTRA Appropriate Technology Transfer for Rural Areas.
 "Prepared by Katherine Adam, ATTRA program specialist"--P. 10.
 "April 2000"--P. 10.
 Includes bibliographical references (p. 7-9).
 Also available on the Internet.
 CY Arkansas; United States
 DT Bibliography; (MONOGRAPH)
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 19 OF 156 AGRICOLA
 AN 2001:51082 AGRICOLA
 DN IND23212017
 TI Micropropagation of **Echinacea** angustifolia, E. pallida, and E. purpurea from stem and seed explants.
 AU Harbage, J.F.
 AV DNAL (SB1.H6)
 SO HortScience : a publication of the American Society for Horticultural Science, Apr 2001. Vol. 36, No. 2. p. 360-364
 Publisher: Alexandria, Va. : The American Society for Horticultural Science.
 CODEN: HJHSAR; ISSN: 0018-5345
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 20 OF 156 AGRICOLA
 AN 2001:50769 AGRICOLA
 DN IND23211066

TI Predicting quantitative phytochemical markers in single *Echinacea*
 plants or clones from their DNA fingerprints.
 AU Baum, B.R.; Mechanda, S.; Livesey, J.F.; Binns, S.E.; Arnason, J.T.
 AV DNAL (450 P5622)
 SO Phytochemistry, Mar 2001. Vol. 56, No. 6. p. 543-549
 Publisher: Oxford : Elsevier Science Ltd.
 CODEN: PYTCAS; ISSN: 0031-9422
 NTE Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 21 OF 156 AGRICOLA
 AN 2001:47216 AGRICOLA
 DN IND23210575
 TI Examining rarity through comparisons with widespread congeners: a genetic
 and ecophysiological example from limestone glade endemics.
 AU Baskauf, C.J.
 AV DNAL (450 So82)
 SO Castanea : the journal of the Southern Appalachian Botanical Club,
 Mar/June 2001. Vol. 66, No. 1/2. p. 126-133
 Publisher: Newberry, S.C. : Southern Appalachian Botanical Society.
 CODEN: CSTNAC; ISSN: 0008-7475
 NTE Special Issue: Southeastern Endemics: Speciation and Biogeography. A
 symposium at the University of North Carolina at Wilmington, April 15,
 1999.
 Includes references
 CY South Carolina; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 22 OF 156 AGRICOLA
 AN 2001:46758 AGRICOLA
 DN IND23210021
 TI Effects of root inoculation and fungicide soil drenches on sclerotinia
 blight of coneflower.
 AU Wang, H.; Chang, K.F.; Hwang, S.F.; Turnbull, G.D.; Howard, R.J.
 AV DNAL (450 C16)
 SO Canadian journal of plant science, Oct 2000. Vol. 80, No. 4. p. 909-915
 Publisher: Ottawa : Agricultural Institute of Canada, 1957-
 CODEN: CPLSAY; ISSN: 0008-4220
 NTE Includes references
 CY Canada; Ontario
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
 SL French

L13 ANSWER 23 OF 156 AGRICOLA
 AN 2001:46537 AGRICOLA
 DN IND23209799
 TI Organochlorine pesticides and metals in select botanical dietary
 supplements.
 AU Huggett, D.B.; Khan, I.A.; Allgood, J.C.; Block, D.S.; Schlenk, D.
 AV DNAL (RA1270.P35A1)
 SO Bulletin of environmental contamination and toxicology, Feb 2001. Vol.
 66,
 No. 2. p. 150-155
 Publisher: New York : Springer-Verlag, 1966-

CODEN: BECTA6; ISSN: 0007-4861

NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 24 OF 156 AGRICOLA
 AN 2001:43719 AGRICOLA
 DN IND22792617
 TI Regeneration of **Echinacea** purpurea: induction of root organogenesis from hypocotyl and cotyledon explants.
 AU Choffe, K.L.; Murch, S.J.; Saxena, P.K.
 AV DNAL (QK725.P53)
 SO Plant cell, tissue and organ culture, 2000. Vol. 62, No. 3. p. 227-234
 Publisher: Dordrecht, The Netherlands : Kluwer Academic Publishers.
 CODEN: PTCEDJ; ISSN: 0167-6857

NTE Includes references
 CY Netherlands
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 25 OF 156 AGRICOLA
 AN 2001:41581 AGRICOLA
 DN IND22906598
 TI From Rudbeckia to **Echinacea**: the emergence of the purple coneflower in modern therapeutics.
 AU Flannery, M.A.
 AV DNAL (SB351.H5H57)
 SO HerbalGram, 2001. No. 51. p. 28-33
 Publisher: Austin, TX : American Botanical Council and the Herb Research Foundation.
 ISSN: 0899-5648

NTE Includes references
 CY Texas; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 26 OF 156 AGRICOLA
 AN 2001:41575 AGRICOLA
 DN IND22906592
 TI First study on safety of **Echinacea** during pregnancy.
 AU Leigh, E.
 AV DNAL (SB351.H5H57)
 SO HerbalGram, 2001. No. 51. p. 21
 Publisher: Austin, TX : American Botanical Council and the Herb Research Foundation.
 ISSN: 0899-5648

NTE Includes references
 CY Texas; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 27 OF 156 AGRICOLA
 AN 2001:40475 AGRICOLA
 DN IND22904662
 TI In vitro culture of **Echinacea** purpurea L.
 AU Coker, P.S.; Camper, N.D.

AV DNAL (SB351.H5J68)
 SO Journal of herbs, spices & medicinal plants, 2000. Vol. 7, No. 4. p. 1-7
 Publisher: Binghamton, NY : The Haworth Herbal Press.
 CODEN: JHEPEF; ISSN: 1049-6475
 NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 28 OF 156 AGRICOLA
 AN 2001:36790 AGRICOLA
 DN IND22433823
 TI Medicinal plants and phytomedicines. Linking plant biochemistry and
 physiology to human health.
 AU Briskin, D.P.
 SO Plant physiology, Oct 2000. Vol. 124, No. 2. p. 507-514
 Publisher: Rockville, MD : American Society of Plant Physiologists, 1926-
 CODEN: PLPHAY; ISSN: 0032-0889
 NTE Includes references
 CY Maryland; United States
 DT Article; Conference
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 29 OF 156 AGRICOLA
 AN 2001:29333 AGRICOLA
 DN IND22301316
 TI Influence of container size and medium amendment on post-transplant
 growth
 of prairie perennial seedlings.
 AU Kemery, R.D.; Dana, M.N.
 AV DNAL (SB317.5.H68)
 SO HortTechnology, Jan/Mar 2001. Vol. 11, No. 1. p. 52-56
 Publisher: Alexandria, VA : American Society for Horticultural Science,
 c1991-
 ISSN: 1063-0198
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 30 OF 156 AGRICOLA
 AN 2001:27047 AGRICOLA
 DN CAT11091864
 TI Herbal medicine : expanded Commission E monographs.
 AU Blumenthal, Mark
 CS German Federal Institute for Drugs and Medical Devices Commission E
 AV DNAL (RM666.H33 H37 2000)
 LCN 99073645
 SO 1st ed. 2000 xiii, 519 p. : col. ill. ; 24 cm
 Publisher: Newton, MA : Integrative Medicine Communications, 2000.
 ISBN: 0967077214.
 NTE "Herb monographs, based on those created by a special expert committee of
 the German Federal Institute for Drugs and Medical Devices."--T.p.
 Includes bibliographical references (p. 495-497) and index.
 Angelica root -- Arnica flower -- Artichoke leaf -- Asparagus root --
 Bilberry fruit -- Black Cohosh root -- Blessed Thistle herb -- Boldo leaf
 -- Bromelain -- Buckthorn bark -- Butcher's Broom -- Calendula flower --
 Cascara Sagrada bark -- Cayenne pepper -- Chamomile flower, German --

Chaste Tree fruit -- Cinnamon bark -- Cinnamon bark, Chinese -- Cola nut
 -- Coriander seed -- Dandelion herb -- Dandelion root with herb --
 Devil's
 Claw root -- **Echinacea** Angustifolia herb and root/Pallida herb
 -- **Echinacea** Pallida root -- **Echinacea** Purpurea herb
 -- **Echinacea** Purpurea root -- Elder flower -- Eleuthero root --
 Ephedra -- Eucalyptus leaf -- Eucalyptus oil -- Fennel oil -- Fennel seed
 -- Fenugreek seed -- Flaxseed -- Garlic -- Gentian root -- Ginger root --
 Ginkgo Biloba leaf extract -- Ginseng root -- Goldenrod -- Hawthorn berry
 -- Hawthorn flower -- Hawthorn leaf -- Hawthorn leaf with flower -- Hops
 -- Horehound herb -- Horse Chestnut seed extract -- Horseradish --
 Horsetail herb -- Iceland moss -- Ivy leaf -- Juniper berry -- Kava Kava
 rhizome (root) -- Lavender flower -- Lemon Balm -- Licorice root --
 Linden
 flower -- Marshmallow leaf -- Marshmallow root -- Mate -- Meadowsweet
 -- Milk Thistle fruit -- Mint oil -- Motherwort herb -- Mullein flower --
 Myrrh -- Oak bark -- Oat straw -- Onion -- Orange peel, bitter -- Parsley
 herb and root -- Passionflower herb -- Peppermint leaf -- Peppermint oil
 -- Pine Needle oil -- Plantain -- Poplar bud -- Psyllium seed, Black --
 Psyllium seed, Blonde -- Psyllium seed husk, Blonde -- Pumpkin seed --
 Rosemary leaf -- Sage leaf -- Saw Palmetto berry -- Senna leaf -- Senna
 pod (fruit) -- Shepherd's Purse -- Soy Lecithin -- Soy Phospholipid --
 St.
 John's wort -- Stinging Nettle herb and leaf -- Stinging Nettle root --
 Thyme -- Turmeric root -- Usnea -- Uva Ursi leaf -- Valerian root --
 Walnut leaf -- Watercress -- Willow bark -- Witch
 Hazel leaf and bark -- Yarrow -- Yeast, Brewer's -- Yeast,
 Brewer's/Hansen
 CBS 5926 -- Yohimbe bark.
 CY Massachusetts; United States
 DT Bibliography; (MONOGRAPH)
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

 L13 ANSWER 31 OF 156 AGRICOLA
 AN 2001:19828 AGRICOLA
 DN IND22295719
 TI Hydrolysis and redox factors affecting analysis of common phenolic marker
 compounds in botanical extracts and finished products.
 AU Baugh, S.; Ignelzi, S.
 AV DNAL (S583.A7)
 SO Journal of AOAC International, Sept/Oct 2000. Vol. 83, No. 5. p.
 1135-1140
 Publisher: Gaithersburg, MD : AOAC International.
 CODEN: JAINEE; ISSN: 1060-3271
 NTE Includes references
 CY Maryland; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

 L13 ANSWER 32 OF 156 AGRICOLA
 AN 2001:18644 AGRICOLA
 DN IND22079710
 TI A quantitative HPLC method for the quality assurance of **Echinacea**
 products on the North American market.
 AU Bergeron, C.; Livesey, J.F.; Awang, D.V.C.; Arnason, J.T.; Rana, J.;
 Baum, B.R.; Letchamo, W.
 SO Phytochemical analysis : PCA, July/Aug 2000. Vol. 11, No. 4. p. 207-215
 Publisher: Chichester, Sussex, UK : Wiley, c1990-

CODEN: PHANEL; ISSN: 0958-0344
NTE Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 33 OF 156 AGRICOLA
AN 2001:12041 AGRICOLA
DN IND22087979
TI Characterization of an arabinogalactan-protein isolated from pressed juice of *Echinacea purpurea* by precipitation with the beta-glucosyl Yariv reagent.

AU Classen, B.; Witthohn, K.; Blaschek, W.
AV DNAL (385 C172)
SO Carbohydrate research, Aug 7, 2000. Vol. 327, No. 4. p. 497-504
Publisher: Oxford : Elsevier Science Ltd.
CODEN: CRBRAT; ISSN: 0008-6215

NTE Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 34 OF 156 AGRICOLA
AN 2001:8837 AGRICOLA
DN IND22078256
TI *Bemisia argentifolii* (Homoptera: Aleyrodidae) attacking species of medicinal herbal plants.
AU Simmons, A.M.; McCutcheon, G.S.; Dufault, R.J.; Hassell, R.L.; Rushing, J.W.
AV DNAL (420 En82)
SO Annals of the Entomological Society of America, July 2000. Vol. 93, No. 4.
p. 856-861
Publisher: Lanham, Md. : Entomological Society of America.
CODEN: AESAAI; ISSN: 0013-8746

NTE Includes references
CY Maryland; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 35 OF 156 AGRICOLA
AN 2001:7747 AGRICOLA
DN IND22074976
TI Studies on the antioxidant activity of *Echinacea* root extract.
AU Hu, C.; Kitts, D.D.
SO Journal of agricultural and food chemistry, May 2000. Vol. 48, No. 5. p. 1466-1472
Publisher: Washington, D.C. : American Chemical Society.
CODEN: JAFCAU; ISSN: 0021-8561

NTE Includes references
CY District of Columbia; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 36 OF 156 AGRICOLA
AN 2001:5167 AGRICOLA

DN IND22085345
 TI Factors affecting the extraction of alkylamides and cichoric acid during
 ethanolic processing of *Echinacea purpurea* (L.) Moench.
 AU Stuart, D.L.; Wills, R.B.H.
 AV DNAL (23 Au792)
 SO Australian journal of experimental agriculture, 2000. Vol. 40, No. 6. p.
 873-877
 Publisher: Collingwood, Vic. Australia : CSIRO Australia.
 ISSN: 0816-1089
 NTE Includes references
 CY Australia
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 37 OF 156 AGRICOLA
 AN 2001:3844 AGRICOLA
 DN IND22083755
 TI Influence of inoculation with vesicular-arbuscular mycorrhizae on
 posttransplant growth of prairie forb seedlings.
 AU Kemery, R.D.; Dana, M.N.
 AV DNAL (SB317.5.H68)
 SO HortTechnology, Oct/Dec 2000. Vol. 10, No. 4. p. 768-772
 Publisher: Alexandria, VA : American Society for Horticultural Science,
 c1991-
 ISSN: 1063-0198
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 38 OF 156 AGRICOLA
 AN 2000:74307 AGRICOLA
 DN IND22075958
 TI Phylogeny of the coneflowers and relatives (Heliantheae: Asteraceae)
 based
 on nuclear rDNA internal transcribed spacer (ITS) sequences and
 chloroplast
 DNA restriction site data.
 AU Urbatsch, L.E.; Baldwin, B.G.; Donoghue, M.J.
 AV DNAL (QK95.S97)
 SO Systematic botany, July/Sept 2000. Vol. 25, No. 3. p. 539-565
 Publisher: Laramie, WY : American Society of Plant Taxonomists.
 ISSN: 0363-6445
 NTE Includes references
 CY Indiana; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 39 OF 156 AGRICOLA
 AN 2000:62079 AGRICOLA
 DN IND22068000
 TI Monitoring the response of rare species to vegetation management
 practices
 within powerline corridors.
 AU Settles, J.E.; Witt, W.W.
 AV DNAL (79.9 So8 (p))
 SO Proceedings, Southern Weed Science Society, 1999. Vol. 52 p. 153
 Publisher: Raleigh, N.c., etc. Southern Weed Science Society

CODEN: SWSPBE; ISSN: 0362-4463

NTE Paper presented at the "A Glance to the Past, A Vision for the Future"
52nd Annual Meeting, January 25-27, 1999, Greensboro, North Carolina.

CY Illinois; United States

DT Article; Conference

FS U.S. Imprints not USDA, Experiment or Extension

LA English

L13 ANSWER 40 OF 156 AGRICOLA

AN 2000:57879 AGRICOLA

DN IND22067112

TI Herbal products: active constituents, modes of action and quality control.

AU Wills, R.B.H.; Bone, K.; Morgan, M.

AV DNAL (QP141.A1N87)

SO Nutrition research reviews, June 2000. Vol. 13, No. 1. p. 47-77
Publisher: Wallingford, Oxon, U.K. : CAB International
CODEN: NREREX; ISSN: 0954-4224

NTE Includes references

CY England; United Kingdom

DT Article; Law

FS Non-U.S. Imprint other than FAO

LA English

L13 ANSWER 41 OF 156 AGRICOLA

AN 2000:56747 AGRICOLA

DN IND22065579

TI Alkylamide and cichoric acid levels in *Echinacea purpurea* tissues during plant growth.

AU Stuart, D.L.; Wills, R.B.H.

AV DNAL (SB351.H5J68)

SO Journal of herbs, spices & medicinal plants, 2000. Vol. 7, No. 1. p. 91-101
Publisher: Binghamton, NY : The Haworth Herbal Press.
CODEN: JHEPEF; ISSN: 1049-6475

NTE Includes references

CY New York (State); United States

DT Article

FS U.S. Imprints not USDA, Experiment or Extension

LA English

L13 ANSWER 42 OF 156 AGRICOLA

AN 2000:54375 AGRICOLA

DN IND22061071

TI Light-mediated antifungal activity of *Echinacea* extracts.

AU Binns, S.E.; Purgina, B.; Bergeron, C.; Smith, M.L.; Ball, L.; Baum, B.R.;
Arnason, J.T.

AV DNAL (450 P697)

SO Planta medica, Apr 2000. Vol. 66, No. 3. p. 241-244
Publisher: Stuttgart : Georg Thieme Verlag,
CODEN: PLMEAA; ISSN: 0032-0943

NTE Includes references

CY Germany

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L13 ANSWER 43 OF 156 AGRICOLA

AN 2000:46451 AGRICOLA

DN IND22045090

- TI Volatile components of roots, stems, leaves, and flowers of **Echinacea** species.
 AU Mazza, G.; Cottrell, T.
 CS Agriculture and Agri-Food Canada, Summerland, BC, Canada.
 SO Journal of agricultural and food chemistry, Aug 1999. Vol. 47, No. 8. p. 3081-3085
 Publisher: Washington, D.C. : American Chemical Society.
 CODEN: JAFCAU; ISSN: 0021-8561
- NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 44 OF 156 AGRICOLA
 AN 2000:41129 AGRICOLA
 DN IND22046760
 TI Alkamide levels in **Echinacea** purpurea: effects of processing, drying and storage.
 AU Perry, N.B.; Klink, J.W. van.; Burgess, E.J.; Parmenter, G.A.
 CS University of Otago, Dunedin, New Zealand.
 AV DNAL (450 P697)
 SO Planta medica, Feb 2000. Vol. 66, No. 1. p. 54-56
 Publisher: Stuttgart : Georg Thieme Verlag,
 CODEN: PLMEAA; ISSN: 0032-0943
- NTE Includes references
 CY Germany
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA German
- L13 ANSWER 45 OF 156 AGRICOLA
 AN 2000:40155 AGRICOLA
 DN IND22039014
 TI Verticillium dahliae, a cause of wilt in **Echinacea** purpurea.
 AU Putnam, M.L.; Crowe, F.
 CS Oregon State University, Corvallis.
 AV DNAL (1.9 P69P)
 SO Plant disease, Sept 1999. Vol. 83, No. 9. p. 877
 Publisher: [St. Paul, Minn., American Phytopathological Society]
 CODEN: PLDIDE; ISSN: 0191-2917
- NTE Includes references
 CY Minnesota; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 46 OF 156 AGRICOLA
 AN 2000:35192 AGRICOLA
 DN IND22045629
 TI Standardization of **Echinacea** purpurea expressed juice with reference to cichoric acid and alkamides.
 AU Bauer, R.
 CS Heinrich-Heine-Universitat Dusseldorf, Dusseldorf, Germany.
 AV DNAL (SB351.H5J68)
 SO Journal of herbs, spices & medicinal plants, 1999. Vol. 6, No. 3. p. 51-62
 Publisher: Binghamton, NY : The Haworth Herbal Press.
 CODEN: JHEPEF; ISSN: 1049-6475
- NTE Includes references
 CY New York (State); United States

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 47 OF 156 AGRICOLA
AN 2000:21842 AGRICOLA
DN IND22025429
TI First report of powdery mildew, caused by *Erysiphe cichoracearum*, on
coneflowers.
AU Sholberg, P.L.; Ginns, J.H.; Li, T.S.C.
CS Agriculture and Agri-Food Canada.
SO Plant disease, July 1999. Vol. 83, No. 7. p. 694
Publisher: [St. Paul, Minn., American Phytopathological Society]
CODEN: PLDIDE; ISSN: 0191-2917
NTE Includes references
CY Minnesota; United States
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 48 OF 156 AGRICOLA
AN 2000:16941 AGRICOLA
DN IND22029384
TI Characterization of *Echinacea* species and detection of possible
adulterations by RAPD analysis.
AU Wolf, H.T.; Zundorf, I.; Winckler, T.; Bauer, R.; Dingeremann, T.
CS Johann Wolfgang Goethe-Universitat, Frankfurt, Germany.
AV DNAL (450 P697)
SO Planta medica, Dec 1999. Vol. 65, No. 8. p. 773-774
Publisher: Stuttgart : Georg Thieme Verlag,
CODEN: PLMEAA; ISSN: 0032-0943
NTE Includes references
CY Germany
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 49 OF 156 AGRICOLA
AN 2000:16917 AGRICOLA
DN IND22029359
TI Effects of an orally applied aqueous-ethanolic extract of a mixture of
thujae occidentalis herba, *baptisiae tinctoriae radix*, *echinaceae*
purpureae radix and *echinaceae pallidae radix* on antibody response
against
sheep red blood cells in mice.
AU Bodinet, C.; Freudenstein, J.
CS Schaper & Brummer, Salzgitter, Germany.
AV DNAL (450 P697)
SO Planta medica, Dec 1999. Vol. 65, No. 8. p. 695-699
Publisher: Stuttgart : Georg Thieme Verlag,
CODEN: PLMEAA; ISSN: 0032-0943
NTE Includes references
CY Germany
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 50 OF 156 AGRICOLA
AN 2000:13778 AGRICOLA
DN IND22019943
TI Scope and limitation of the application of the (methoxydimethyl)methyl

group in the synthesis of 2'-O-, 6'-O- and 2',6'-di-O-(alpha-L-arabino-furanosyl)-beta-D-galactopyranosyl-(1 leads to 6)-D-galactoses.

AU Borbas, A.; Janossy, L.; Liptak, A.
 CS Hungarian Academy of Sciences, Debrecen.
 SO Carbohydrate research, May 31, 1999. Vol. 318, No. 1/4. p. 98-109
 Publisher: Oxford : Elsevier Science Ltd.
 CODEN: CRBRAT; ISSN: 0008-6215

NTE Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 51 OF 156 AGRICOLA
 AN 2000:11680 AGRICOLA
 DN IND22027201
 TI The herbal sling vs. the magic bullet.
 AU Duke, J.A.
 AV DNAL (RA784.J687)
 SO Journal of medicinal food, 1999. Vol. 2, No. 2. p. 73-76
 Publisher: Larchmont, NY : Mary Ann Liebert, Inc., c1998-
 CODEN: JMFOFJ; ISSN: 1096-620X

NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 52 OF 156 AGRICOLA
 AN 2000:10124 AGRICOLA
 DN IND22022875
 TI **Echinacea**: still out in the cold.
 AU Schardt, D.
 AV DNAL (TX341.N98)
 SO Nutrition action health letter, Apr 1998. Vol. 25, No. 3. p. 8-10
 Publisher: [Washington, D.C. : Center for Science in the Public Interest,
 CODEN: NAHLED; ISSN: 0885-7792

NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 53 OF 156 AGRICOLA
 AN 2000:9592 AGRICOLA
 DN IND22020377
 TI Costs and returns of growing selected medicinal herbs in New Mexico
 indicate positive return to land and risk likely.
 AU Falk, C.L.; Van Voorthuizen, H.; Wall, M.M.; Guldan, S.J.; Martin, C.A.;
 Kleitz, K.M.
 CS New Mexico State University, Las Cruces.
 AV DNAL (SB317.5.H68)
 SO HortTechnology, Oct/Dec 1999. Vol. 9, No. 4. p. 681-686
 Publisher: Alexandria, VA : American Society for Horticultural Science,
 c1991-
 ISSN: 1063-0198

NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

- L13 ANSWER 54 OF 156 AGRICOLA
AN 2000:8359 AGRICOLA
DN CAT11063669
TI Generation of high quality Australian *Echinacea purpurea* products : a report for the Rural Industries Research and Development Corporation.
AU Wills, R. B. H.; Stuart, D. L.
CS Rural Industries Research and Development Corporation
AV DNAL (HD9019.H473 A884 1999)
SO [1999] x, 43 p. : ill. ; 30 cm
Publisher: Barton, ACT : Rural Industries Research & Development Corp., [1999]
Series: RIRDC publication ; no. 99/95
ISBN: 0642579407.
NTE "September 1999."
"RIRDC project no. UNC-4A."
Includes bibliographical references (p. 41).
CY Australia
DT Bibliography; (MONOGRAPH)
FS Non-U.S. Imprint other than FAO
LA English
- L13 ANSWER 55 OF 156 AGRICOLA
AN 2000:7718 AGRICOLA
DN CAT11062486
TI Ekhinatseia v Ukraine : poluvekovoiopyt introduktsii i vzdelyvaniia = *Echinacea* in Ukraine : the half century experience of introduction and growing.
AU Samorodov, V. N.; Pospelov, S. V.
AV DNAL (QK495.C74 S36 1999)
SO 1999 50, [1] p. : ill. ; 20 cm
Publisher: Poltava : Verstka, 1999.
ISBN: 9669530091.
NTE Includes bibliographical references (p. 47-[51]).
CY Ukraine
DT Bibliography; (MONOGRAPH)
FS Non-U.S. Imprint other than FAO
LA Russian
- L13 ANSWER 56 OF 156 AGRICOLA
AN 2000:1498 AGRICOLA
DN IND22013586
TI Native wildflower establishment with imidazolinone herbicides.
AU Beran, D.D.; Gaussoin, R.E.; Masters, R.A.
CS University of Nebraska, Lincoln.
SO HortScience : a publication of the American Society for Horticultural Science, Apr 1999. Vol. 34, No. 2. p. 283-286
Publisher: Alexandria, Va. : The American Society for Horticultural Science.
CODEN: HJHSAR; ISSN: 0018-5345
NTE Includes references
CY United States; Virginia.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
- L13 ANSWER 57 OF 156 AGRICOLA
AN 1999:61219 AGRICOLA
DN IND22000662
TI Inclusion of botanicals in swine diets examined.

AU Holden, P.J.; McKean, J.; Franzenburg, E.
 CS Iowa State University, Ames.
 AV DNAL (286.81 F322)
 SO Feedstuffs, June 28, 1999. Vol. 71, No. 26. p. 11-13, 23
 Publisher: Carol Stream, Ill. : Miller Publishing Company.
 CODEN: FDSTAL; ISSN: 0014-9624
 NTE Includes references
 CY Illinois; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 58 OF 156 AGRICOLA
 AN 1999:56982 AGRICOLA
 DN IND21999493
 TI Alkylamides of *Echinacea purpurea* L. as influenced by plant ontogony and fertilization.
 AU El-Gengaihi, S.E.; Shalaby, A.S.; Agina, E.A.; Hendawy, S.F.
 CS National Research Center, Dokki, Cairo, Egypt.
 AV DNAL (SB351.H5J68)
 SO Journal of herbs, spices & medicinal plants, 1998. Vol. 5, No. 4. p. 35-41
 Publisher: Binghamton, NY : The Haworth Herbal Press.
 CODEN: JHEPEF; ISSN: 1049-6475
 NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 59 OF 156 AGRICOLA
 AN 1999:25816 AGRICOLA
 DN IND21976191
 TI Antioxidant activity of selected medicinal plants.
 AU Pietta, P.; Simonetti, P.; Mauri, P.
 CS ITBA-CNR, Milano, Italy.
 AV DNAL (381 J8223)
 SO Journal of agricultural and food chemistry, Nov 1998. Vol. 46, No. 11. p. 4487-4490
 Publisher: Washington, D.C. : American Chemical Society.
 CODEN: JAFCAU; ISSN: 0021-8561
 NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 60 OF 156 AGRICOLA
 AN 1999:21332 AGRICOLA
 DN IND21968046
 TI Flowering of herbaceous perennials under various night interruption and cyclic lighting treatments.
 AU Runkle, E.S.; Heins, R.D.; Cameron, A.C.; Carlson, W.H.
 CS Michigan State University, East Lansing, MI.
 SO HortScience : a publication of the American Society for Horticultural Science, July 1998. Vol. 33, No. 4. p. 672-677
 Publisher: Alexandria, Va. : The American Society for Horticultural Science.
 CODEN: HJHSAR; ISSN: 0018-5345
 NTE Paper presented at the "Colloquium on the Impact of Biotechnology on the Environment" held at the 93rd American Society of Horticultural Science

Annual Conference, October 9, 1996, Lexington, Kentucky.
Includes references

CY United States; Virginia
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 61 OF 156 AGRICOLA
AN 1999:5606 AGRICOLA
DN IND21960884
TI MEKC analysis of different **Echinacea** species.
AU Pietta, P.; Mauri, P.; Bauer, R.
CS ITBA-CNR, Milano, Italy.
AV DNAL (450 P697)
SO Planta medica, Oct 1998. Vol. 64, No. 7. p. 649-652
Publisher: Stuttgart : Georg Thieme Verlag,
CODEN: PLMEAA; ISSN: 0032-0943
NTE Includes references
CY Germany
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 62 OF 156 AGRICOLA
AN 1999:3780 AGRICOLA
DN IND21814275
TI **Echinacea**: cultivation and medicinal value.
AU Li, T.S.C.
CS Agriculture and Agri-Food Canada, Summerland, BC, Canada.
AV DNAL (SB317.5.H68)
SO HortTechnology, Apr/June 1998. Vol. 8, No. 2. p. 122-129
Publisher: Alexandria, VA : American Society for Horticultural Science,
c1991-
ISSN: 1063-0198
NTE Includes references
CY United States; Virginia
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 63 OF 156 AGRICOLA
AN 1999:2731 AGRICOLA
DN IND21812478
TI Potassium hydroxide improves seed germination and emergence in five
native
plant species.
AU Gao, Y.P.; Zheng, G.H.; Gusta, L.V.
CS University of Saskatchewan, Saskatoon, SK, Canada.
AV DNAL (SB1.H6)
SO HortScience : a publication of the American Society for Horticultural
Science, Apr 1998. Vol. 33, No. 2. p. 274-276
Publisher: Alexandria, Va. : The American Society for Horticultural
Science.
CODEN: HJHSAR; ISSN: 0018-5345
NTE Includes references
CY United States; Virginia
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 64 OF 156 AGRICOLA

AN 1999:1884 AGRICOLA
 DN IND21808989
 TI Nutraceuticals: a natural choice for grain-based products.
 AU Wilson, D.
 CS A.M. Todd Group of Companies, Montgomeryville, PA.
 SO Cereal foods world, Sept 1998. Vol. 43, No. 9. p. 718-719
 Publisher: St. Paul, Minn., American Association of Cereal Chemists
 CODEN: CFWODA; ISSN: 0146-6283
 CY Minnesota; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 65 OF 156 AGRICOLA
 AN 1998:70232 AGRICOLA
 DN IND21638436
 TI High performance liquid chromatography determined alkamide levels in
 Australian-grown *Echinacea* spp.
 AU Rogers, K.L.; Grice, I.D.; Mitchell, C.J.; Griffiths, L.R.
 CS Griffith University, Gold Coast, Qld, Australia.
 AV DNAL (23 Au792)
 SO Australian journal of experimental agriculture, 1998. Vol. 38, No. 4. p.
 403-408
 Publisher: Collingwood, Vic. Australia : CSIRO Australia.
 ISSN: 0816-1089
 NTE Includes references
 CY Australia
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 66 OF 156 AGRICOLA
 AN 1998:65292 AGRICOLA
 DN IND21636260
 TI Ecological consequences of hybridization between a wild species (*Echinacea* purpurea) and related cultivar (*E. purpurea* 'White Swan').
 AU Van Gaal, T.M.; Galatowitsch, S.M.; Stefeler, M.S.
 AV DNAL (SB13.S3)
 SO Scientia horticultrurae, July 17, 1998. Vol. 76, No. 1/2. p. 73-88
 Publisher: Amsterdam : Elsevier Science B.V.
 CODEN: SHRTAH; ISSN: 0304-4238
 NTE Includes references
 CY Netherlands
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 67 OF 156 AGRICOLA
 AN 1998:64479 AGRICOLA
 DN IND21634489
 TI Analysis of alkamides in roots and achenes of *Echinacea purpurea*
 by liquid chromatography-electrospray mass spectrometry.
 AU He, X.; Lin, L.; Bernart, M.W.; Lian, L.
 AV DNAL (QD272.C4J68)
 SO Journal of chromatography. A, July 31, 1998. Vol. 815, No. 2. p. 205-211
 Publisher: Amsterdam ; New York : Elsevier, 1993-
 CODEN: JCRAEY
 NTE Includes references
 CY Netherlands
 DT Article

FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 68 OF 156 AGRICOLA
 AN 1998:63940 AGRICOLA
 DN IND21513522
 TI EN's herbal medicine cabinet: top 10 herbs you can trust.
 AU Klauser, A.
 AV DNAL (TX341.E5)
 SO Environmental nutrition, May 1998. Vol. 21, No. 5. p. 1, 4
 Publisher: New York : Environmental Nutrition, Inc.,
 ISSN: 0893-4452
 NTE Part two of a two-part series.
 Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 69 OF 156 AGRICOLA
 AN 1998:55165 AGRICOLA
 DN IND20633870
 TI **Echinacea** safety confirmed.
 AU McCaleb, R.
 AV DNAL (SB351.H5H57)
 SO HerbalGram, Spring 1998. No. 42. p. 15
 Publisher: Austin, TX : American Botanical Council and the Herb Research
 Foundation.
 ISSN: 0899-5648
 CY Texas; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 70 OF 156 AGRICOLA
 AN 1998:53191 AGRICOLA
 DN IND20630768
 TI Response of **Echinacea** to some agricultural practices.
 AU Shalaby, A.S.; Agina, E.A.; El-Gengaihi, S.E.; El-Khayat, A.S.; Hindawy,
 S.F.
 AV DNAL (SB351.H5J68)
 SO Journal of herbs, spices & medicinal plants, 1997. Vol. 4, No. 4. p.
 59-67
 Publisher: Binghamton, NY : Food Products Press, c1992-
 CODEN: JHEPEF; ISSN: 1049-6475
 NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 71 OF 156 AGRICOLA
 AN 1998:35233 AGRICOLA
 DN IND20906987
 TI Purple coneflower (**Echinacea purpurea**).
 AU Cox, J.
 AV DNAL (S605.5.074)
 SO Organic gardening, May/June 1998. Vol. 45, No. 5. p. 52, 54
 Publisher: [Emmaus, PA : Rodale Press, c1988-
 ISSN: 0897-3792
 CY Pennsylvania; United States

DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 72 OF 156 AGRICOLA
 AN 1998:30334 AGRICOLA
 DN IND20800654
 TI Growth and yield of **Echinacea** purpurea L. as influenced by
 planting density and fertilization.
 AU Shalaby, A.S.; El-Gengaihi, S.E.; Agina, E.A.; El-Khayat, A.S.; Hendawy,
 S.F.
 AV DNAL (SB351.H5J68)
 SO Journal of herbs, spices & medicinal plants, 1997. Vol. 5, No. 1. p.
 69-76
 Publisher: Binghamton, NY : Food Products Press, c1992-
 CODEN: JHEPEF; ISSN: 1049-6475

NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 73 OF 156 AGRICOLA
 AN 1998:7314 AGRICOLA
 DN IND20612487
 TI **Echinacea** #1 in natural food trade.
 AV DNAL (SB351.H5H57)
 SO HerbalGram, Fall 1997. No. 41. p. 53
 Publisher: Austin, TX : American Botanical Council and the Herb Research
 Foundation.
 ISSN: 0899-5648
 CY Texas; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 74 OF 156 AGRICOLA
 AN 97:82033 AGRICOLA
 DN IND20604549
 TI Alkamide levels in **Echinacea** purpurea: a rapid analytical method
 revealing differences among roots, rhizomes, stems, leaves and flowers.
 AU Perry, N.B.; Van Klink, J.W.; Burgess, E.J.; Parmenter, G.A.
 CS University of Otago, Dunedin, New Zealand.
 SO Planta medica, Feb 1997. Vol. 63, No. 1. p. 58-62
 Publisher: Stuttgart : Georg Thieme Verlag,
 CODEN: PLMEAA; ISSN: 0032-0943

NTE Includes references
 CY Germany
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 75 OF 156 AGRICOLA
 AN 97:71942 AGRICOLA
 DN IND20596989
 TI Echinacoside and caeffeoyle conjugates protect collagen from free
 radical-induced degradation: a potential use of **Echinacea**
 extracts in the prevention of skin photodamage.
 AU Maffei Facino, R.; Carini, M.; Aldini, G.; Saibene, L.; Pietta, P.;
 Mauri,
 P.

CS Istituto Chimico Farmaceutico Tossicologico, Milan, Italy.
 AV DNAL (450 P697)
 SO Planta medica, Dec 1995. Vol. 61, No. 6. p. 510-514
 Publisher: Stuttgart : Georg Thieme Verlag,
 CODEN: PLMEAA; ISSN: 0032-0943
 NTE Includes references
 CY Germany
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 76 OF 156 AGRICOLA
 AN 97:63759 AGRICOLA
 DN IND20590761
 TI Experimental evaluation of protective activity of *Echinacea*
 pallida against cisplatin toxicity.
 AU Mustea, I.; Postescu, I.D.; Tamas, M.; Rasnita, T.D.
 CS Oncological Institute, Cluj-Napoca, Romania.
 AV DNAL (RS164.P59)
 SO Phytotherapy research : PTR, May 1997. Vol. 11, No. 3. p. 263-265
 Publisher: Sussex : John Wiley & Sons.
 CODEN: PHYREH; ISSN: 0951-418X
 NTE Includes references
 CY England; United Kingdom
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 77 OF 156 AGRICOLA
 AN 97:62982 AGRICOLA
 DN IND20589308
 TI Productivity and profitability of some field-grown specialty cut flowers.
 AU Starman, T.W.; Cerny, T.A.; MacKenzie, A.J.
 CS University of Tennessee, Knoxville, TN.
 AV DNAL (SB1.H6)
 SO HortScience : a publication of the American Society for Horticultural
 Science, Oct 1995. Vol. 30, No. 6. p. 1217-1220
 Publisher: Alexandria, Va. : The American Society for Horticultural
 Science.
 CODEN: HJHSAR; ISSN: 0018-5345
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 78 OF 156 AGRICOLA
 AN 97:49754 AGRICOLA
 DN IND20578315
 TI A phylogenetic analysis of the coneflower genera (Asteraceae:
 Heliantheae).
 AU Cox, P.B.; Urbatsch, L.E.
 CS Louisiana State University, Baton Rouge.
 AV DNAL (QK95.S97)
 SO Systematic botany, July/Sept 1990. Vol. 15, No. 3. p. 394-402
 Publisher: Notre Dame, IN :
 ISSN: 0363-6445
 NTE Includes references
 CY Indiana; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension

LA English

L13 ANSWER 79 OF 156 AGRICOLA
AN 97:8231 AGRICOLA
DN IND20543937
TI Wildflower research blossoms into 100-acre pharmaceutical truck garden.
AU Leslie, J.
CS SDSU.
AV DNAL (100 So82S)
SO South Dakota farm & home research, Winter 1995/1996. Vol. 46, No. 4. p. 14-15
Publisher: Brookings : South Dakota Agricultural Experiment Station,
1949-

CODEN: SDFHAT; ISSN: 0038-3295
Gov. Source: State, provincial, territorial
CY South Dakota; United States
DT Article
FS Experiment Station
LA English

L13 ANSWER 80 OF 156 AGRICOLA
AN 96:59942 AGRICOLA
DN IND20536118
TI Gibberellic acid during priming of *Echinacea purpurea* (L.)
Moench seeds improves performance after seed storage.
AU Pill, W.G.; Haynes, J.G.
CS University of Delaware, Newark, DE.
AV DNAL (80 J825)
SO The Journal of horticultural science, Mar 1996. Vol. 71, No. 2. p. 287-295

Publisher: Ashford : Headley Brothers Ltd.
CODEN: JHSCA8; ISSN: 0022-1589
NTE Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 81 OF 156 AGRICOLA
AN 96:40557 AGRICOLA
DN IND20520542
TI Allelopathic potential of *Echinacea angustifolia* D.C.
AU Viles, A.L.; Reese, R.N.
CS South Dakota State University, Brookings, SD.
AV DNAL (450 R11)
SO Environmental and experimental botany, May 1996. Vol. 36, No. 1. p. 39-43

Publisher: Oxford : Pergamon Press.
CODEN: EEBODM; ISSN: 0098-8472
NTE Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 82 OF 156 AGRICOLA
AN 96:36201 AGRICOLA
DN IND20517310
TI Growing *echinacea* for profit.
AU Polachic, D.
AV DNAL (S1.M57)

SO Small farm today, Apr 1996. Vol. 13, No. 2. p. 53
 Publisher: Clark, MO : Missouri Farm Publishing Inc., [1992-
 ISSN: 1079-9729
 CY Missouri; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 83 OF 156 AGRICOLA
 AN 96:34179 AGRICOLA
 DN IND20515210
 TI Solid-phase extraction and reversed-phase high-performance liquid
 chromatography of free phenolic acids in some **Echinacea** species.
 AU Glowniak, K.; Zgorka, G.; Kozyra, M.
 CS University Medical Academy, Lublin, Poland.
 AV DNAL (QD272.C4J68)
 SO Journal of chromatography. A, Apr 12, 1996. Vol. 730, No. 1/2. p. 25-29
 Publisher: Amsterdam ; New York : Elsevier, 1993-
 CODEN: JCRAEY
 NTE Paper presented at the 19th International Symposium on Column Liquid
 Chromatography held May 28-June 2, 1995, Innsbruck, Austria. Part III.
 Includes references
 CY Netherlands
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 84 OF 156 AGRICOLA
 AN 96:27039 AGRICOLA
 DN IND20509517
 TI Osmotic priming or chilling stratification improves seed germination of
 purple coneflower.
 AU Wartidiningsih, N.; Geneve, R.L.; Kester, S.T.
 CS University of Kentucky, Lexington, KY.
 AV DNAL (SB1.H6)
 SO HortScience : a publication of the American Society for Horticultural
 Science, Dec 1994. Vol. 29, No. 12. p. 1445-1448
 Publisher: Alexandria, Va. : The American Society for Horticultural
 Science.
 CODEN: HJHSAR; ISSN: 0018-5345
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 85 OF 156 AGRICOLA
 AN 96:27038 AGRICOLA
 DN IND20509514
 TI Seed source and quality influence germination in purple coneflower [
Echinacea purpurea (L.) Moench.].
 AU Wartidiningsih, N.; Geneve, R.L.
 CS University of Kentucky, Lexington, KY.
 AV DNAL (SB1.H6)
 SO HortScience : a publication of the American Society for Horticultural
 Science, Dec 1994. Vol. 29, No. 12. p. 1443-1444
 Publisher: Alexandria, Va. : The American Society for Horticultural
 Science.
 CODEN: HJHSAR; ISSN: 0018-5345
 NTE Includes references
 CY United States; Virginia

DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 86 OF 156 AGRICOLA
 AN 96:10504 AGRICOLA
 DN IND20497470
 TI Ethylene-, light-, and prechill-enhanced germination of *Echinacea angustifolia* seeds.
 AU Peghahati, S.M.J.; Reese, R.N.
 CS South Dakota State University, Brookings, SD.
 AV DNAL (81 SO12)
 SO Journal of the American Society for Horticultural Science, July 1994.
 Vol. 119, No. 4. p. 853-858
 Publisher: Alexandria, Va. :
 ISSN: 0003-1062
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 87 OF 156 AGRICOLA
 AN 95:67685 AGRICOLA
 DN IND20487313
 TI New larval host plant and behavior of *Chlosyne gorgone* (Lepidoptera: Nymphalidae).
 AU Williams, A.H.
 CS University of Wisconsin, Madison, WI.
 AV DNAL (QL461.M5)
 SO The Great Lakes entomologist, Spring 1995. Vol. 28, No. 1. p. 93-94
 Publisher: [East Lansing] : Michigan Entomological Society, 1972-
 CODEN: GRLEAG; ISSN: 0090-0222
 NTE Includes references
 CY Michigan; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 88 OF 156 AGRICOLA
 AN 95:39173 AGRICOLA
 DN IND20465555
 TI Studies on the endangered *Echinacea tennesseensis* (Asteraceae): plant community and demographic analysis.
 AU Drew, M.B.; Clebsch, E.E.C.
 CS Jones Ecological Research Center, Newton, GA.
 AV DNAL (450 So82)
 SO Castanea : the journal of the Southern Appalachian Botanical Club, Mar 1995. Vol. 60, No. 1. p. 60-69
 Publisher: Newberry, S.C. : Southern Appalachian Botanical Society.
 CODEN: CSTNAC; ISSN: 0008-7475
 NTE Includes references
 CY South Carolina; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 89 OF 156 AGRICOLA
 AN 95:34368 AGRICOLA
 DN IND20462255

- TI Use of stinging nettle as a potential organic fertilizer for herbs.
 AU Li, T.S.C.
 CS Agriculture Canada, Summerland, BC, VOH, Canada.
 AV DNAL (SB351.H5J68)
 SO Journal of herbs, spices & medicinal plants, 1994. Vol. 2, No. 2. p.
 93-98
 Publisher: Binghamton, NY : Food Products Press, c1992-
 CODEN: JHEPEF; ISSN: 1049-6475
 NTE Includes references
 CY New York (State); United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 90 OF 156 AGRICOLA
 AN 95:27238 AGRICOLA
 DN IND20456220
 TI Phylogenetic affinities among and within the coneflower genera
 (Asteraceae, Heliantheae), a chloroplast DNA analysis.
 AU Urbatsch, L.E.; Jansen, R.K.
 CS Louisiana State University, Baton Rouge, LA
 AV DNAL (QK95.S97)
 SO Systematic botany, Jan/Mar 1995. Vol. 20, No. 1. p. 28-39
 Publisher: Lawrence, Kan. :
 ISSN: 0363-6445
 NTE Includes references
 CY Kansas; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 91 OF 156 AGRICOLA
 AN 95:13950 AGRICOLA
 DN IND20445884
 TI Wildflower establishment in seedbeds created from an industrial
 co-product
 and co-composted municipal waste.
 AU Pill, W.G.; Smith, W.G.; Frett, J.J.; Devenney, D.
 CS University of Delaware, Newark, DE
 AV DNAL (SB1.J66)
 SO Journal of environmental horticulture, Dec 1994. Vol. 12, No. 4. p.
 193-197
 Publisher: Washington, D.C. : Horticultural Research Institute, [c1983-
 CODEN: JEHOD5; ISSN: 0738-2898
 NTE Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 92 OF 156 AGRICOLA
 AN 94:86146 AGRICOLA
 DN IND20431356
 TI Genetic analysis of a rare and a widespread species of **Echinacea**
 (Asteraceae).
 AU Baskauf, C.J.; McCauley, D.E.; Eickmeier, W.G.
 AV DNAL (443.8 Ev62)
 SO Evolution, Feb 1994. Vol. 48, No. 1. p. 180-188
 Publisher: Lawrence, Kan. : Society for the Study of Evolution, 1947-
 CODEN: EVOLAO; ISSN: 0014-3820
 NTE Includes references

CY Kansas; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 93 OF 156 AGRICOLA
 AN 94:84028 AGRICOLA
 DN IND20429134
 TI Comparative ecophysiology of a rare and a widespread species of **Echinacea** (Asteraceae).
 AU Baskauf, C.J.; Eickmeier, W.G.
 AV DNAL (450 Am36)
 SO American journal of botany, Aug 1994. Vol. 81, No. 8. p. 958-964
 Publisher: Columbus, Ohio : Botanical Society of America.
 CODEN: AJBOAA; ISSN: 0002-9122
 NTE Includes references
 CY Ohio; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 94 OF 156 AGRICOLA
 AN 94:70604 AGRICOLA
 DN IND20418412
 TI Germination of *Coreopsis lanceolata* and **Echinacea purpurea** seeds following priming and storage.
 AU Samfield, D.M.; Zajicek, J.M.; Cobb, B.G.
 AV DNAL (SB1.H6)
 SO HortScience : a publication of the American Society for Horticultural Science, Dec 1990. Vol. 25, No. 12. p. 1605-1606
 Publisher: Alexandria, Va. : The American Society for Horticultural Science.
 CODEN: HJHSAR; ISSN: 0018-5345
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 95 OF 156 AGRICOLA
 AN 94:69679 AGRICOLA
 DN IND20417395
 TI Physiological mechanisms of drought resistance in four native ornamental perennials.
 AU Chapman, D.S.; Auge, R.M.
 AV DNAL (81 S012)
 SO Journal of the American Society for Horticultural Science, Mar 1994. Vol. 119, No. 2. p. 299-306
 Publisher: Alexandria, Va. :
 ISSN: 0003-1062
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 96 OF 156 AGRICOLA
 AN 94:52571 AGRICOLA
 DN IND20404917
 TI Weed control in container-grown herbaceous perennials.
 AU Derr, J.F.

AV DNAL (SB1.H6)
 SO HortScience : a publication of the American Society for Horticultural Science, Feb 1994. Vol. 29, No. 2. p. 95-97
 Publisher: Alexandria, Va. : The American Society for Horticultural Science.
 CODEN: HJHSAR; ISSN: 0018-5345
 NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 97 OF 156 AGRICOLA
 AN 94:42511 AGRICOLA
 DN IND20396835
 TI Comparative ecology of the narrow endemic **Echinacea** *tennesseensis* and two geographically widespread congeners: relative competitive ability and growth characteristics.
 AU Snyder, K.M.; Baskin, J.M.; Baskin, C.C.
 AV DNAL (QK1.B38)
 SO International journal of plant sciences, Jan 1994. Vol. 155, No. 1. p. 57-65
 Publisher: Chicago, IL : University of Chicago Press, c1992-
 ISSN: 1058-5893
 NTE Includes references
 CY Illinois; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 98 OF 156 AGRICOLA
 AN 94:41741 AGRICOLA
 DN IND20396056
 TI In vitro inhibition of cyclooxygenase and 5-lipoxygenase by alkanamides from **Echinacea** and *Achillea* species.
 AU Muller-Jakic, B.; Breu, W.; Probstle, A.; Redl, K.; Greger, H.; Bauer, R.
 AV DNAL (450 P697)
 SO Planta medica, Feb 1994. Vol. 60, No. 1. p. 37-40
 Publisher: Stuttgart : Georg Thieme Verlag,
 CODEN: PLMEAA; ISSN: 0032-0943
 NTE Includes references
 CY Germany
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 99 OF 156 AGRICOLA
 AN 94:35479 AGRICOLA
 DN IND20390946
 TI Misapplied name of the purple coneflower in the ecological studies of John E. Weaver.
 AU Baskin, J.M.; Snyder, K.M.; Baskin, C.C.
 AV DNAL (451 T63B)
 SO Bulletin of the Torrey Botanical Club, Jan/Mar 1994. Vol. 121, No. 1. p. 73-75
 Publisher: Bronx, N.Y. : The Club.
 CODEN: BTBCAL; ISSN: 0040-9618
 NTE Includes references
 CY New York (State); United States

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 100 OF 156 AGRICOLA
AN 94:31336 AGRICOLA
DN IND20386715
TI Introduction of **Echinacea** purpurea and Leuzea charthamoides into cultivation in Finland.
AU Galambosi, B.
AV DNAL (80 Ac82)
SO Acta horticulturae, Sept 1993. No. 331. p. 169-178
Publisher: Wageningen : International Society for Horticultural Science.
CODEN: AHORA2; ISSN: 0567-7572
NTE Paper presented at the First World Congress on "Medicinal and Aromatic Plants for Human Welfare, WOCMAP: Raw material production, product introduction," July 19-25, 1992, Maastricht, Netherlands.
Includes references
CY Netherlands
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 101 OF 156 AGRICOLA
AN 94:30153 AGRICOLA
DN IND20385494
TI Effect of **Echinacea**, Aconitum, Lachesis and Apis extracts, and their combinations on phagocytosis of human granulocytes.
AU Erhard, M.; Kellner, J.; Wild, J.; Losch, U.; Hatiboglu, F.S.
AV DNAL (RS164.P59)
SO Phytotherapy research : PTR, Feb 1994. Vol. 8, No. 1. p. 14-17
Publisher: Sussex : John Wiley & Sons.
CODEN: PHYREH; ISSN: 0951-418X
NTE Includes references
CY England; United Kingdom
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 102 OF 156 AGRICOLA
AN 94:24500 AGRICOLA
DN IND20380618
TI Stratification improves seed germination of five native wildflower species.
AU Bratcher, C.B.; Dole, J.M.; Cole, J.C.
AV DNAL (SB1.H6)
SO HortScience : a publication of the American Society for Horticultural Science, Sept 1993. Vol. 28, No. 9. p. 899-901
Publisher: Alexandria, Va. : The American Society for Horticultural Science.
CODEN: HJHSAR; ISSN: 0018-5345
NTE Includes references
CY United States; Virginia
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 103 OF 156 AGRICOLA
AN 94:22269 AGRICOLA
DN IND20378367
TI Wildflower tolerance to metolachlor and metolachlor combined with other

- broadleaf herbicides.
- AU Derr, J.F.
 AV DNAL (SB1.H6)
 SO HortScience : a publication of the American Society for Horticultural Science, Oct 1993. Vol. 28, No. 10. p. 1023-1026
 Publisher: Alexandria, Va. : The American Society for Horticultural Science.
 CODEN: HJHSAR; ISSN: 0018-5345
- NTE Includes references
 CY United States; Virginia
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 104 OF 156 AGRICOLA
 AN 94:13617 AGRICOLA
 DN IND20371347
 TI Nomenclatural history and taxonomic status of **Echinacea** angustifolia, E. pallida, and E. tenesseeensis (Asteraceae).
 AU Baskin, J.M.; Snyder, K.M.; Baskin, C.C.
 AV DNAL (450 Si1)
 SO SIDA, contributions to botany, Dec 1993. Vol. 15, No. 4. p. 597-604
 Publisher: Fort Worth, Tex. : Wm. F. Mahler.
 CODEN: SCBTA4; ISSN: 0036-1488
- NTE Includes references
 CY Texas; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
 SL Spanish
- L13 ANSWER 105 OF 156 AGRICOLA
 AN 94:13257 AGRICOLA
 DN IND20370979
 TI Phytomedicines in Western Europe: potential impact on herbal medicine in the United States.
 AU Tyler, V.E.
 AV DNAL (QD1.A45)
 SO ACS symposium series, 1993. No. 534. p. 25-37
 Publisher: Washington, D.C. : American Chemical Society, 1974-
 CODEN: ACSMC8; ISSN: 0097-6156
- NTE In the series analytic: Human medicinal agents from plants / edited by A.D. Kinghorn and M.F. Balandrin.
 Includes references
 CY District of Columbia; United States
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 106 OF 156 AGRICOLA
 AN 94:46 AGRICOLA
 DN NON30052099
 TI Seed priming for improved germination in purple coneflower (**Echinacea purpurea**)
 AU Wartidiningsih
 AV KyU (Thesis 1992 Wartidiningsih)
 SO 1992 vii, 76 leaves : ill. ; 28 cm
 Publisher: 1992.
- NTE Includes vita and abstract.
 Thesis (Ph.D.)--University of Kentucky, 1992.
 Includes bibliographical references (l. 68-75)

CY Kentucky; United States
 DT Dissertation; (MONOGRAPH)
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 107 OF 156 AGRICOLA
 AN 93:74173 AGRICOLA
 DN CAT93999630
 TI **Echinacea** : the purple coneflowers.
 AU Foster, Steven
 CS American Botanical Council
 AV DNAL (RS165.E4F672 1991)
 SO c1991 7 p. ; 22 cm
 Publisher: [Austin, TX] : American Botanical Council, c1991.
 Series: Botanical series (American Botanical Council) ; no. 301.
 NTE Cover title.
 Includes bibliographical references (p. 7).
 CY Texas; United States
 DT Bibliography; (MONOGRAPH)
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 108 OF 156 AGRICOLA
 AN 93:48989 AGRICOLA
 DN CAT93992614
 TI In vitro experiments on the effect of various homeopathic dillutions of Lachesis and **Echinacea** on lymphocytes from the peripheral blood of rabbits.
 In vitro Versuche zur Wirkung verschiedener homoopathischer Dillutionen von Lachesis und **Echinacea** auf Lymphozyten aus dem peripheren Blut von Kaninchen.
 AU Arndt, Gabriele
 AV DNAL (DISS F1992219)
 SO 1992 92 p. : ill. ; 21 cm
 Publisher: Bonn : [s.n.], 1992.
 NTE Vita.
 Thesis (doctoral)--Friedrich-Wilhelms-Universitat Bonn, 1992.
 Includes bibliographical references (p. [93-108]).
 CY Germany
 DT Bibliography; Dissertation; (MONOGRAPH)
 FS Non-U.S. Imprint other than FAO
 LA German

L13 ANSWER 109 OF 156 AGRICOLA
 AN 93:20128 AGRICOLA
 DN IND93007749
 TI Effects of seed priming on plug production of *Coreopsis lanceolata* and **Echinacea purpurea**.
 AU Finnerty, T.; Zajicek, J.M.
 CS Texas A&M University, College Station, TX
 AV DNAL (SB1.J66)
 SO Journal of environmental horticulture, Sept 1992. Vol. 10, No. 3. p. 129-132
 Publisher: Washington, D.C. : Horticultural Research Institute.
 ISSN: 0738-2898
 NTE Includes references.
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 110 OF 156 AGRICOLA

AN 93:12669 AGRICOLA
 DN IND93002347
 TI Alkamides and caffeic acid derivatives from the roots of **Echinacea**
 tennesseensis.
 AU Bauer, R.; Remiger, P.; Alstat, E.
 CS Universitat Munchen, Munchen, Federal Republic of Gemany
 AV DNAL (450 P697)
 SO Planta medica, Dec 1990. Vol. 56, No. 6. p. 533-534
 Publisher: Stuttgart, W. Ger. : Georg Thieme Verlag.
 CODEN: PLMEAA; ISSN: 0032-0943
 NTE Paper presented at International symposium on biology and chemistry of
 active natural substances, July 17-22, 1990, Bonn, Germany.
 Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 111 OF 156 AGRICOLA
 AN 93:1395 AGRICOLA
 DN CAT92991258
 TI **Echinacea** : nature's immune enhancer.
 AU Foster, Steven; Foster, Steven
 AV DNAL (RS165.E4F67 1990)
 LCN 90024824
 SO c1991 x, 150 p. : ill., maps ; 20 cm
 Publisher: Rochester, Vt. : Healing Arts Press : Distributed to the book
 trade in the U.S. by American International Distribution Corp., c1991.
 ISBN: 0892813865 (paper).
 NTE Rev. ed. of: **Echinacea** exalted. 2nd ed., rev. and enl. Brixey,
 Mo. : Ozark Beneficial Plant Project, Ozark Resources Center, c1985.
 Includes bibliographical references (p. 122-143) and index.
 CY United States; Vermont
 DT Bibliography; (MONOGRAPH)
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 112 OF 156 AGRICOLA
 AN 93:512 AGRICOLA
 DN CAT92968940
 TI The **Echinacea** handbook.
 AU Hobbs, Christopher; Miovich, Michael
 AV DNAL (RS164.H53 1989)
 LCN 91815192
 SO c1989 118 p. : ill. ; 28 cm
 Publisher: Capitola, Calif. : Institute for Natural Products Research ;
 Portland, Or. : Eclectic Medical Publications, c1989.
 NTE Includes bibliographical references (p. 109-118).
 CY California; United States
 DT Bibliography; (MONOGRAPH)
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 113 OF 156 AGRICOLA
 AN 92:115657 AGRICOLA
 DN IND92070944
 TI Analysis of alkamides and caffeic acid derivatives from **Echinacea**
 simulata and E. paradoxa roots.
 AU Bauer, R.; Foster, S.
 CS Institut fur Pharmazeutische Biologie der Universitat Munchen, Munchen,
 Federal Republic of Germany
 AV DNAL (450 P697)

- SO Planta medica, Oct 1991. Vol. 57, No. 5. p. 447-449
 Publisher: Stuttgart, W. Ger. : Georg Thieme Verlag.
 CODEN: PLMEAA; ISSN: 0032-0943
- NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
- L13 ANSWER 114 OF 156 AGRICOLA
 AN 92:114446 AGRICOLA
 DN IND92069687
 TI **Echinacea**: anatomy, phytochemical pattern, and germination of the achene.
 AU Schulthess, B.H.; Giger, E.; Baumann, T.W.
 CS University of Zurich, Zurich, Switzerland
 AV DNAL (450 P697)
- SO Planta medica, 1991. Vol. 57, No. 4. p. 384-388
 Publisher: Stuttgart, W. Ger. : Georg Thieme Verlag.
 CODEN: PLMEAA; ISSN: 0032-0943
- NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English
- L13 ANSWER 115 OF 156 AGRICOLA
 AN 92:106153 AGRICOLA
 DN IND92064375
 TI Father nature's pharmacist.
 AU Swain, R.B.
 CS Horticulture Magazine
 AV DNAL (S522.U5H37)
- SO Harrowsmith country life, July/Aug 1992. Vol. 7, No. 40. p. 30-35, 77
 Publisher: Charlotte, Vt. : Camden House Publishing.
 ISSN: 1049-4618
- DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 116 OF 156 AGRICOLA
 AN 92:106043 AGRICOLA
 DN IND92064265
 TI Seed dormancy in the prairie forb **Echinacea** angustifolia var. angustifolia (Asteraceae): afterripening pattern during cold stratification.
 AU Baskin, C.C.; Baskin, J.M.; Hoffman, G.R.
 CS University of Kentucky, Lexington, KY
 AV DNAL (QK1.B38)
- SO International journal of plant sciences, June 1992. Vol. 153, No. 2. p. 239-243
 Publisher: Chicago, Ill. : University of Chicago Press.
 ISSN: 1058-5893
- NTE Includes references.
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English
- L13 ANSWER 117 OF 156 AGRICOLA
 AN 92:85541 AGRICOLA
 DN IND92051045
 TI Studies on antigen specificity of immunoreactive arabinogalactan proteins extracted from Baptisia tinctoria and **Echinacea** purpurea.

AU Egert, D.; Beuscher, N.
 CS Schaper & Brummer, Salzgitter, Federal Republic of Germany
 AV DNAL (450 P697)
 SO Planta medica, Apr 1992. Vol. 58, No. 2. p. 163-165
 Publisher: Stuttgart, W. Ger. : Georg Thieme Verlag.
 CODEN: PLMEAA; ISSN: 0032-0943
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 118 OF 156 AGRICOLA
 AN 92:59000 AGRICOLA
 DN IND92029690
 TI Protoplast isolation and plant regeneration in ornamental Compositae.
 AU Al-Atabee, J.S.; Power, J.B.
 CS University of Nottingham, Nottingham, United Kingdom
 AV DNAL (80 AC82)
 SO Acta horticulturae, July 1990. No. 280. p. 255-258
 Publisher: Wageningen : International Society for Horticultural Science.
 CODEN: AHORA2; ISSN: 0567-7572
 NTE In the series analytic: In vitro Culture and Horticultural Breeding /
 edited by J. Janick and R.H. Zimmerman. Proceedings of an International
 Symposium, May 30-June 3, 1989, Bologna, Italy.
 Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 119 OF 156 AGRICOLA
 AN 91:82117 AGRICOLA
 DN IND91046404
 TI Agrobacterium rhizogenes-mediated transformation of *Echinacea*
purpurea.
 AU Trypsteen, M.; Lijsebettens, M. van; Severen, R. van; Montagu, M. van
 CS State University of Ghent, Harelbekestraat, Gent, Belgium
 AV DNAL (QK725.P54)
 SO Plant cell reports, 1991. Vol. 10, No. 2. p. 85-89
 Publisher: Berlin, W. Ger. : Springer International.
 CODEN: PCRPD8; ISSN: 0721-7714
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 120 OF 156 AGRICOLA
 AN 91:38777 AGRICOLA
 DN IND91019868
 TI Plant regeneration from protoplasts of *Rudbeckia* and *Dimorphotheca*
species
(Compositae).
 AU Al-Atabee, J.; Power, J.B.
 CS Scientific Research Council, Baghdad, Iraq
 AV DNAL (S494.5.B563C87)
 SO Current plant science and biotechnology in agriculture, 1988. No. 7. p.
 77-78
 Publisher: Dordrecht : Kluwer Academic Publishers.
 NTE In the series analytic: Progress in Plant Protoplast Research / edited by
 K.J. Puite, J.J.M. Dons, H.J. Huizing, A.J. Kool, M. Koornneef and F.A.
 Krens. Paper presented at the "7th International Protoplast Symposium,"
 December 6-11, 1987, Wageningen, the Netherlands.

Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 121 OF 156 AGRICOLA
AN 91:22628 AGRICOLA
DN FNI91000252
TI **Echinacea**: the immunity herb.
AU Cullen, S.
AV DNAL (TX392.A1V44)
SO Vegetarian times, Nov 1990. No. 159. p. 66-69, 79 ill., charts
Publisher: Mt. Morris, Ill. : Vegetarian Times.
ISSN: 0164-8497
Target Audience: General

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 122 OF 156 AGRICOLA
AN 91:17735 AGRICOLA
DN IND91005579
TI Rate and uniformity of herbaceous perennial seed germination and
emergence
as affected by priming.

AU Samfield, D.M.; Zajicek, J.M.; Cobb, B.G.
CS Texas A&M University, College Station, TX
AV DNAL (81 S012)
SO Journal of the American Society for Horticultural Science, Jan 1991. Vol.
116, No. 1. p. 10-13
Publisher: Alexandria, Va. : The Society.
CODEN: JOSHB5; ISSN: 0003-1062
NTE Includes references.

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 123 OF 156 AGRICOLA
AN 90:47975 AGRICOLA
DN IND90028811
TI TLC and HPLC analysis of alkamides in **Echinacea** drugs.
AU Bauer, R.; Remiger, P.
CS Universitat Munchen, Munchen, Federal Republic of Germany
AV DNAL (450 P697)
SO Planta medica, Aug 1989. Vol. 55 p. 367-371
Publisher: Stuttgart, W. Ger. : Georg Thieme Verlag.
CODEN: PLMEAA; ISSN: 0032-0943
NTE Includes references.

DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 124 OF 156 AGRICOLA
AN 90:32449 AGRICOLA
DN IND90017485
TI Ethnobotany of purple coneflower (**Echinacea angustifolia**,
Asteraceae) and other **Echinacea** species.
AU Kindscher, K.
CS University of Kansas, Lawrence, KS
AV DNAL (450 EC7)
SO Economic botany, Oct/Dec 1989. Vol. 43, No. 4. p. 498-507

Publisher: Bronx, N.Y. : New York Botanical Garden.
CODEN: ECBOA5; ISSN: 0013-0001

NTE Includes references.
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English
SL Spanish

L13 ANSWER 125 OF 156 AGRICOLA

AN 90:5321 AGRICOLA

DN IND89065258

TI Cyanidin 3-malonylglucoside in two **Echinacea** species.

AU Cheminat, A.; Brouillard, R.; Guerne, P.; Bergmann, P.; Rether, B.

CS CNRS, Institut de Chimie, Strasbourg, France

AV DNAL (450 P5622)

SO Phytochemistry, Sept 29, 1989. Vol. 28, No. 11. p. 3246-3247
Publisher: Oxford : Pergamon Press.

CODEN: PYTCAS; ISSN: 0031-9422

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L13 ANSWER 126 OF 156 AGRICOLA

AN 90:1805 AGRICOLA

DN CAT89931111

TI Investigations into the stimulation of the non-specific defense of rabbits

through different dilutions of **Echinacea** angustifolia, measured by the chemical luminescence of leukocytes in whole blood.
Untersuchungen zur stimulierung der unspezifischen Abwehr von Kanichen durch verschiedene dilutionen von **Echinacea** angustifolia, gemessen an der chemilumineszenz der Leukozyten aus dem Vollblut.

AU Woestmann, Alfons

AV DNAL (105.8 B644 1986 [no. 38])

SO 1986 92 p. : ill. ; 21 cm

Publisher: Bonn : [s.n.], 1986.

NTE Thesis (doctoral)--Universitat Bonn, 1986.

Includes bibliographical references (p. 81-92).

CY Germany

DT Bibliography; Dissertation; (MONOGRAPH)

FS Non-U.S. Imprint other than FAO

LA German

L13 ANSWER 127 OF 156 AGRICOLA

AN 89:55044 AGRICOLA

DN IND89023483

TI Alkamides from the roots of **Echinacea** angustifolia.

AU Bauer, R.; Remiger, P.; Wagner, H.

AV DNAL (450 P5622)

SO Phytochemistry, 1989. Vol. 28, No. 2. p. 505-508

Publisher: Oxford : Pergamon Press.

CODEN: PYTCAS; ISSN: 0031-9422

NTE Includes references.

DT Article

FS Non-U.S. Imprint other than FAO

LA English

L13 ANSWER 128 OF 156 AGRICOLA

AN 89:29790 AGRICOLA

DN IND89006368

TI Transplanting or seeding in raised beds aids field establishment of some **Echinacea** species.
 AU Smith-Jochum, C.; Albrecht, M.L.
 AV DNAL (SB1.H6)
 SO HortScience, Dec 1988. Vol. 23, No. 6. p. 1004-1005
 Publisher: Alexandria, Va. : American Society for Horticultural Science.
 CODEN: HJHSAR; ISSN: 0018-5345
 NTE Includes references.
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 129 OF 156 AGRICOLA
 AN 89:24858 AGRICOLA
 DN IND89004156
 TI Caffeoyle conjugates from **Echinacea** species: structures and biological activity.
 AU Cheminat, A.; Zawatzky, R.; Becker, H.; Brouillard, R.
 AV DNAL (450 P5622)
 SO Phytochemistry, 1988. Vol. 27, No. 9. p. 2787-2794
 Publisher: Oxford : Pergamon Press.
 CODEN: PYTCAS; ISSN: 0031-9422
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 130 OF 156 AGRICOLA
 AN 89:23908 AGRICOLA
 DN IND89002917
 TI A germacrene alcohol from fresh aerial parts of **Echinacea purpurea**.
 AU Bauer, R.; Remiger, P.; Wray, V.; Wagner, H.
 AV DNAL (450 P697)
 SO Planta medica, Oct 1988. Vol. 54, No. 5. p. 478-479
 Publisher: Stuttgart, W. Ger. : Georg Thieme Verlag.
 CODEN: PLMEAA; ISSN: 0032-0943
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 131 OF 156 AGRICOLA
 AN 89:23878 AGRICOLA
 DN IND89002887
 TI TLC and HPLC analysis of **Echinacea pallida** and **E. angustifolia** roots.
 AU Bauer, R.; Khan, I.A.; Wagner, H.
 AV DNAL (450 P697)
 SO Planta medica, Oct 1988. Vol. 54, No. 5. p. 426-430
 Publisher: Stuttgart, W. Ger. : Georg Thieme Verlag.
 CODEN: PLMEAA; ISSN: 0032-0943
 NTE Includes references.
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 132 OF 156 AGRICOLA
 AN 89:23660 AGRICOLA
 DN IND89002663
 TI Field establishment of three **Echinacea** species for commercial

production.

AU Smith-Jochum, C.C.; Albrecht, M.L.
 AV DNAL (80 AC82)
 SO Acta horticulturae, Aug 1987. No. 208. p. 115-120
 Publisher: Wageningen : International Society for Horticultural Science.
 CODEN: AHORA2; ISSN: 0567-7572

NTE In the series analytic: Medicinal and aromatic plants / edited by J.E. Simon, A. Mathe, L.E. Craker. Proceeding of an International Symposium, August 11-20, 1986, Davis, California.
 Includes references.

DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 133 OF 156 AGRICOLA
 AN 88:99509 AGRICOLA
 DN IND88032807
 TI Alkamides from the roots of *Echinacea purpurea*.
 AU Bauer, R.; Remiger, P.; Wagner, H.
 AV DNAL (450 P5622)
 SO Phytochemistry, 1988. Vol. 27, No. 7. p. 2339-2342
 Publisher: Oxford : Pergamon Press.
 CODEN: PYTCAS; ISSN: 0031-9422

NTE Includes references.

DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 134 OF 156 AGRICOLA
 AN 88:76607 AGRICOLA
 DN IND88017025
 TI Further derivatives of caffeic acid from *Echinacea purpurea*.
 Weitere Kaffeesaure-Derivate aus *Echinacea purpurea*.
 AU Soicke, H.; Al-Hassan, G.; Gorler, K.
 AV DNAL (450 P697)
 SO Planta medica, Apr 1988. Vol. 54, No. 2. p. 175-176
 Publisher: Stuttgart, W. Ger. : Georg Thieme Verlag.
 CODEN: PLMEAA; ISSN: 0032-0943

NTE Includes references.

DT Article
 FS Non-U.S. Imprint other than FAO
 LA German
 SL English

L13 ANSWER 135 OF 156 AGRICOLA
 AN 88:29109 AGRICOLA
 DN IND87093501
 TI Immunologically active polysaccharides of *Echinacea purpurea* cell cultures.
 AU Wagner, H.; Stuppner, H.; Schafer, W.; Zenk, M.
 AV DNAL (450 P5622)
 SO Phytochemistry, 1988. Vol. 27, No. 1. p. 119-126
 Publisher: Oxford : Pergamon Press.
 CODEN: PYTCAS; ISSN: 0031-9422

NTE Includes references.

DT Article
 FS Non-U.S. Imprint other than FAO
 LA English

L13 ANSWER 136 OF 156 AGRICOLA
 AN 87:80171 AGRICOLA

DN IND87050502
TI Structural analysis of a 4-O-methyl-glucuronoarabinoxylan with
immuno-stimulating activity from **Echinacea purpurea**.
AU Proksch, A.; Wagner, H.
AV DNAL (450 P5622)
SO Phytochemistry, July 2, 1987. Vol. 26, No. 7. p. 1989-1993
Publisher: Oxford : Pergamon Press.
CODEN: PYTCAS; ISSN: 0031-9422
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 137 OF 156 AGRICOLA
AN 87:65709 AGRICOLA
DN IND87039838
TI Some garden daisies and sunflowers.
AU Brown, E.
AV DNAL (81 C1293)
SO Pacific horticulture, Spring 1986. Vol. 47, No. 1. p. 24-28 ill
Publisher: San Francisco : Pacific Horticultural Foundation.
CODEN: PAHOD9; ISSN: 0163-7843
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 138 OF 156 AGRICOLA
AN 87:36771 AGRICOLA
DN IND87018155
TI Two acetylenic compounds from **Echinacea pallida** roots.
AU Bauer, R.; Khan, I.A.; Wray, V.; Wagner, H.
AV DNAL (450 P5622)
SO Phytochemistry, 1987. Vol. 26, No. 4. p. 1198-1200
Publisher: Oxford : Pergamon Press.
CODEN: PYTCAS; ISSN: 0031-9422
NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 139 OF 156 AGRICOLA
AN 86:28828 AGRICOLA
DN FNI86009832
TI Strengthening your immune system with herbs.
AU Keville, Kathi
AV DNAL (TX392.A1V4 F&N)
SO Vegetarian times, July 1985. No. 95. p. 56-57
Publisher: New York : Vegetarian Life & Times, Inc.
Target Audience: General
DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 140 OF 156 AGRICOLA
AN 85:72083 AGRICOLA
DN GUA85060390
TI **Echinaceas**: the purple coneflowers.
AU Foster, S.
AV DNAL (80 N216)
SO American horticulturist, Aug 1985. Vol. 64, No. 8. p. 14-17 ill
Publisher: Alexandria, Va. : The American Horticultural Society.

ISSN: 0096-4417

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 141 OF 156 AGRICOLA
AN 85:71812 AGRICOLA
DN GUA85059397
TI Taxonomic studies on Indian Agarics-II.
AU Sarwal, B.M.
AV DNAL (464.8 IN2)
SO Indian phytopathology, June 1984. Vol. 37, No. 2. p. 228-233 ill
Publisher: New Delhi : Indian Phytopathological Society.
CODEN: IPHYAU; ISSN: 0367-973X

NTE Includes references.
DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 142 OF 156 AGRICOLA
AN 84:32698 AGRICOLA
DN IND84017996
TI Asteraceae: *Echinacea tennesseensis* (Beadle) Small [Endangered
species, perennial plants of open limestone glades in Tennessee].
AU Kral, R.
AV DNAL (aSD11.U5962)
SO Technical publication R8-TP - USDA Forest Service, Southern Region., Mar
1983 No. 2, pt. 2. p. 1139-1142 maps
Publisher: [Atlanta, Ga.] : The Region.

NTE Includes references.
DT Article
FS USDA
LA English

L13 ANSWER 143 OF 156 AGRICOLA
AN 84:32697 AGRICOLA
DN IND84017995
TI Asteraceae: *Echinacea laevigata* (Boynt. & Beadle) Blake
[Endangered species, perennial plants of open woodlands in Virginia,
Georgia and Alabama].
AU Kral, R.
AV DNAL (aSD11.U5962)
SO Technical publication R8-TP - USDA Forest Service, Southern Region., Mar
1983 No. 2, pt. 2. p. 1135-1138 maps
Publisher: [Atlanta, Ga.] : The Region.

NTE Includes references.
DT Article
FS USDA
LA English

L13 ANSWER 144 OF 156 AGRICOLA
AN 84:27630 AGRICOLA
DN IND84014992
TI Tennessee coneflower [Recovery plan, *Echinacea tennesseensis*,
endangered plants].
AV DNAL (S960.E5)
SO Endangered species technical bulletin., July 1983 Vol. 8, No. 7. p. 7-8,
12 ill
Publisher: Washington, D.C. : Dept. of the Interior, U.S. Fish and
Wildlife Service, Endangered Species Progr.
ISSN: 0145-9236

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 145 OF 156 AGRICOLA
AN 83:94215 AGRICOLA
DN IND83080171
TI Further amides from **Echinacea** purpurea isolated from the aerial parts, chemotaxonomic relevance.
AU Bohlmann, F.; Hoffmann, H.
AV DNAL (450 P5622)
SO Phytochemistry., 1983 Vol. 22, No. 5. p. 1173-1175 ill
Publisher: Oxford : Pergamon Press.
ISSN: 0031-9422

NTE Includes references.

DT Article
FS Non-U.S. Imprint other than FAO
LA English

L13 ANSWER 146 OF 156 AGRICOLA
AN 83:56108 AGRICOLA
DN IND83044781
TI Effects of vernalization and photoperiod on flowering in **Echinacea** tennesseensis, an endangered species Tennessee.
AU Baskin, J.M.; Baskin, C.C.
AV DNAL (500 T25A)
SO Journal of the Tennessee Academy of Science., Apr 1982 Vol. 57, No. 2. p. 53-56 ill
Publisher: Nashville : The Academy.
ISSN: 0040-313X

NTE Includes references.

DT Article
FS U.S. Imprints not USDA, Experiment or Extension
LA English

L13 ANSWER 147 OF 156 AGRICOLA
AN 82:119542 AGRICOLA
DN IND82093377
TI Structure of echinacoside **Echinacea** angustifolia, Asteraceae. Struktur von Echinacosid.
AU Becker, H.; Hsieh, W.C.; Wylde, R.; Laffite, C.; Andary, C.
AV DNAL (QH301.Z4)
SO Zeitschrift fur Naturforschung. Section C. Biosciences., May/June 1982 Vol. 37, No. 5/6. p. 351-353 ill
Publisher: Tubingen, Ger., Zeitschrift fur Naturforschung.
ISSN: 0341-0382

NTE 10 ref.

DT Article
FS Non-U.S. Imprint other than FAO
LA German
SL English

L13 ANSWER 148 OF 156 AGRICOLA
AN 80:156973 AGRICOLA
DN IND80129768
TI Assessment of the action of Calendula officinalis and **Echinacea** angustifolia extracts on Trichomonas vaginalis in vitro Herbs, antiparasitic properties.
Ocena dzialania wyciagow Calendula officinalis i **Echinacea** angustifolia na Trichomonas vaginalis in vitro.
AU Samochowiec, E.; Urbanska, L.; Manka, W.; Stolarska, E.

AV DNAL (436.8 W63)
 SO Wiadomosci parazytologiczne., 1979 Vol. 25, No. 1. p. 77-81 ill
 Publisher: Wroclaw, Panstwowe Wydawn. Naukowe.
 ISSN: 0043-5163
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA Polish
 SL English

L13 ANSWER 149 OF 156 AGRICOLA
 AN 79:65170 AGRICOLA
 DN IND79054442
 TI Stereoselective synthesis of the proposed American coneflower
Echinacea angustifolia juvenile hormone mimic. Some observations
 on the cyclopropylcarbinyll rearrangement in substituted systems.
 AU Cooke, M.P. Jr
 AV DNAL (381 J827)
 SO Journal of organic chemistry, July 6, 1979 Vol. 44, No. 14. p. 2461-2468
 ill
 Publisher: Easton, Pa., American Chemical Society
 ISSN: 0022-3263
 NTE 24 ref.
 DT Article
 FS U.S. Imprints not USDA, Experiment or Extension
 LA English

L13 ANSWER 150 OF 156 AGRICOLA
 AN 78:72716 AGRICOLA
 DN 78-9050485
 TI Inhibition of viruses [including vesicular stomatitis] by
Echinacea purpurea [Root extracts tested in mouse cells]
 Virushemmung mit **Echinacea purpurea** Virus
 AU Wacker, A; Hilbig, W
 AV DNAL (450 P697)
 SO Plant Med, Feb 1978 Vol. 33, No. 1, pp. 89-102. Eng. Sum.
 DT Journal; Article
 LA German

L13 ANSWER 151 OF 156 AGRICOLA
 AN 78:7056 AGRICOLA
 DN 78-9091430
 TI N-alkanes of **Echinacea angustifolia**
 Die N-Alkane von **Echinacea angustifolia**
 AU Verelis, C; Becker, H
 AV DNAL (450 P697)
 SO Plant Med, May 1977 Vol. 31, No. 3, pp. 288-289. Eng. Sum.
 DT Journal; Article
 LA German

L13 ANSWER 152 OF 156 AGRICOLA
 AN 76:38811 AGRICOLA
 DN 76-9039207
 TI Naturally occurring insect growth regulators. III. Echinolone, a highly
 active juvenile hormone mimic from **Echinacea angustifolia** roots
 [Tenebrio molitor]
 AU Jacobson, M; Redfern, R E; Mills, G D Jr
 AV DNAL (442.8 L77)
 SO Lloydia, Nov/Dec 1975 Vol. 38, No. 6, pp. 473-476.
 DT Journal; Article
 LA English

L13 ANSWER 153 OF 156 AGRICOLA
 AN 74:75057 AGRICOLA
 DN 74-9075843
 TI Notice on the biogenesis of polyinamides. [*Echinacea pupurea*]
 Notiz uber die Biogenese von Polyinamiden
 AU Bohlmann, F; Dallwitz, E
 AV DNAL (384 B45)
 SO Chem Ber, 1974 Vol. 107, No. 6, pp. 2120-2122.
 DT Journal; Article
 LA German

L13 ANSWER 154 OF 156 AGRICOLA
 AN 73:57587 AGRICOLA
 DN 73-9182417
 TI Purple coneflower, *Echinacea purpurea*, in Ontario
 AU Cody, W J; Boivin, B
 AV DNAL (410.9 OT8)
 SO Can Field Natur, Jan/Mar 1973 Vol. 87, No. 1, pp. 70.
 DT Journal; Article
 LA English

L13 ANSWER 155 OF 156 AGRICOLA
 AN 72:3364 AGRICOLA
 DN 72-9003372
 TI Echinacin B: active polysaccharide of the *Echinacea*
 Echinacina B: polisaccaride attivo dell'*Echinacea*
 AU Bonadeo, I; Bottazzi, G; Lavazza, M
 AV DNAL (308.8 R52)
 SO Riv Ital Essenze - Profumi - Piante Off, May 1971 Vol. 53, No. 5, pp.
 281-295. Ref. Eng. Sum.
 DT Journal; Article
 LA Italian

L13 ANSWER 156 OF 156 AGRICOLA
 AN 71:86945 AGRICOLA
 DN 71-9166719
 TI Rediscovery of *Echinacea tennesseensis* (Beadle) Small
 AU Quarterman, E; Hemmerly, T E
 AV DNAL (450 R34)
 SO Rhodora, June 1971 Vol. 73, No. 794, pp. 304-305.
 DT Journal; Article
 LA English

and understand quite a bit about its therapeutic action. However, three-quarters of a century has only slightly reduced the novelty of echinacea to those who still rely primarily on modern "heroic" drugs and surgery.

Echinacea's timeline and world-wide use

Echinacea's common names are "purple coneflower," narrow-leaved purple coneflower," or simply "coneflower." Its native stomping-grounds are in America, especially the fertile plains of the Midwest and South through the Ozarks and into Texas.

Native Americans, especially in the Plains region, used echinacea for a variety of infectious illnesses. The Choctaw chewed roots to treat coughs; the Delaware used echinacea to cure gonorrhea; and the Kiowa found that swallowing the juices formed when chewing the root would help soothe a sore throat. Many tribes used echinacea in steam medicine, which involved pouring strong echinacea tea over hot coals, then breathing in the echinacea-rich steam.

Echinacea was first introduced into the American pharmaceutical trade in 1895 by the Lloyd Brothers Pharmacists, of Cincinnati, Ohio. Lloyd Brothers manufactured hundreds of plant medicines, known as "Specific Medicines," for use by the then-popular Eclectic physicians. This group of physicians, such as Felter (mentioned above) practiced in the United States from the 1850s through the 1940s.

Eclectics used primarily plant medicines and offered patients remedies other than the "heroic" measures of blood-letting and metal purgatives. Until the 1920s, echinacea was one of America's most commonly prescribed medicines. However, as sulfa drugs became available during the 1920s, and penicillin followed during the 1940s, the popularity of echinacea declined.

Today, in part due to on-going European, particularly German, research, and in part due to the surge of interest in natural medicines, echinacea has once again come into its own. Widely used throughout Europe and the United States, echinacea has currently one of the most well-known and popular of medicinal plants.

How do we know it's echinacea?

For identification and study purposes, plants are categorized into groups: family, genus, and species. A "family" includes many plants of similar structure; "genus" defines one plant type within a family; and "species" defines small variations among plants of the same genus.

Plants also have one or more common names. Some herbalists have noted that the more popular the plant, the more common names it has. Echinacea is a member of the aster (Asteraceae) plant family. Its genus name is "echinacea," and there are nine different species. The species most often used as medicine include angustifolia, purpurea, and pallida. Echinacea tennesseensis and Echinacea laevigata are endangered. Several other species of echinacea exist in Arkansas, Texas, Louisiana, and Missouri.

Described alternately as "a quite persistent disagreeable tingling sensation" by Felter, "a faint aromatic smell, with a sweetish taste, leaving a tingling sensation in the mouth" by Maude Grieve (A Modern Herbal, 1959), and "weird" by young teenagers in my medical practice, good quality echinacea tincture, or the powdered root itself, should create a harmless numbing sensation on the tongue when tasted or chewed. Nevertheless, since we're not planning to grow this ourselves, taking it in supplement form (capsules, etc.) avoids these sensations.

In order to be certain consumers are indeed obtaining echinacea, and to preserve wild echinacea from over-harvesting, I recommend that people purchase supplements of cultivated echinacea. Both Echinacea purpurea and Echinacea angustifolia are farmed in the United States and around the world; preparations of it are available in most health and natural food stores.

Science says 'yes'

Long before double-blind, placebo-controlled studies, people knew that echinacea helped them fight infectious disease.

The Eclectics were aware that echinacea increased phagocytosis (the process of ingestion of large particles by cells), and they also used echinacea topically on venomous bites and stings, gangrene, and wounds that refused to heal.

In 1978, the German government initiated the "Commission E" to evaluate plant medicines. Referred to by prominent authorities such as Varro Tyler, Ph.D., as one of the most accurate sources of scientific

knowledge on herb safety and efficacy, Commission E approves of echinacea as a supportive measure in the treatment of respiratory and urinary tract infections.

Commission E also endorses echinacea in the treatment of difficult-to-heal superficial wounds. Two 1992 German studies documented echinacea's effect in both reducing the severity and the length of colds and flus.

It is not clear that echinacea is an immunostimulant herb. Though often referred to as a "natural antibiotic," echinacea does not kill bacteria, as do pharmaceutical antibiotics, which destroy not only harmful bacteria, but good bacteria, as well. Instead, echinacea increases the action of our own immune system and enhances our body's ability to kill harmful organisms. Echinacea contains isolutylamides and chicoric acid which stimulate phagocytosis; in humans with colds or the flu, phagocytosis is helpful because the engulfing of bacteria or other organisms by white cells allows the body to return to a healthy state.

Researchers have also found that echinacea contains compounds which slow down the spread of harmful bacteria, keeping it localized and allowing the body's defense system to go to work. Another very exciting element in echinacea research is an indication that components of the plant boost the body's production of interferon, which limits the multiplication of viruses, bacteria, and some protozoa. Interferon also has anticancer activity and is currently being explored in cancer research.

How and when should we use echinacea?

Echinacea's primary function, then, is to help our immune system help itself. Extractions of the purple coneflower seem to activate and enhance our own physical response to disease. It makes sense, therefore, that the best time to take echinacea is at the earliest onset of an illness -- at the first snuffly congestion in the nose, the first raspy, painful swallowing in the throat, or with the beginning of that ache-in-the-joints that signals the beginning of flu.

The Commission recommends that echinacea be used for no more than eight consecutive weeks. In fact, many herbalists recommend "four days on, four days off."

Goldenseal: history and science coming together

Goldenseal (*Hydrastis canadensis*) is rapidly becoming as popular as echinacea. A member of the buttercup family, goldenseal is a native of Canada and of the eastern United States. Although there are few studies, to date, documenting goldenseal's effectiveness, its reputation speaks loud and clear -- as does James A. Duke, Ph.D.:

Both antiseptic and immune-stimulating, goldenseal reportedly increases the blood supply to the spleen, an organ that's the staging area for the fighting cells of your immune system. ... The major healing component in goldenseal, berberine, activates special white blood cells (macrophages) that are responsible for destroying bacteria, fungi, viruses, and tumor cells. (Source: *The Green Pharmacy*, Rodale Press, 1997.)

The Cherokee and Iroquois used goldenseal for inflammations of the eye, dyspepsia, cough, and diarrhea. It was used in the late 1700s and throughout the 1800s as a digestive bitter, an application for sore eyes, and as a remedy for various forms of congestion and excess mucus. It was also used as a nasal snuff for "catarrh."

Containing special compounds, called isoquinoline alkaloids, principally hydrastine and berberine (mentioned above), goldenseal's modern reputation is as a "natural antibiotic." My clinical experience has been that goldenseal is very effective against infections of the mucous membranes -- sore throats, sinusitis, and intestinal flu with diarrhea. I also concur with the historic use of goldenseal powder as a "snuff" for nasal congestion. A small amount (1/8 teaspoon) can also be added to eight ounces of saline solution and used as a nasal irrigation for sinusitis. Nevertheless, to the majority of us who are averse to opening capsules and such, straight supplementation works very well.

There are some cautionary notes with goldenseal: it should not be used during pregnancy, or by nursing mothers. Children under the age of 2 and people with high blood pressure should not use goldenseal. Some are allergic to goldenseal. If you suspect you might be allergic, try applying a small amount to your tongue or nostril. If you react to this application with swelling, sneezing, a rash, or any irritation, do not try any more -- you are probably allergic.

Important: Goldenseal should only be used for specific conditions and

discontinued when the illness is healed..

Is it endangered?

In this writer's opinion, the most important thing to note about goldenseal is the viability of its future. A debate exists within the herbal community about goldenseal and whether or not it is endangered.

In the January 1997 issue of *Better Nutrition*, Steven Foster suggested that "Goldenseal is not endangered; however, the large increase in demand has highlighted the need for more information on the plant's distribution, biology, reproduction, and, ultimately, the need to develop commercially-cultivated supplies of the herb to satisfy a growing domestic and international market."

It is a point of record, however, that hundreds of thousands of pounds of goldenseal are sold every year in the United States. Much of this supply comes from native sources, harvested by "wildcrafters" who pick the whole plant, most especially the root, from the native area in which it is growing. If wildcrafters are not careful in their selection process, and if the demand for goldenseal continues to rise, goldenseal, if not already endangered, may well become so in the near future.

Several simple solutions exist to this problem: one, purchase only cultivated goldenseal root. Support farmers who grow organic goldenseal specifically for the medicinal market. While helpful for the sustainability of goldenseal, it also makes sense to use organic herbs when using plants to treat a disease. I continue to prescribe goldenseal to my patients, but I only dispense cultivated, organically grown goldenseal in my practice. Cultivated goldenseal costs a bit more than wildcrafted goldenseal, but I consider it part of my contribution to the future of this wild and native botanical.

A second choice is to learn more about other medicinal herbs so that goldenseal is not the only choice when illness comes. Limit your use of goldenseal to situations for which it is specifically applicable: bacterial sore throats and sinusitis, and flu with significant intestinal symptoms, such as diarrhea.

Also, learn about other herbs, such as berberis, which also contains the alkaloid berberine, eupatorium, and elder, which help the body fight viruses.

Perhaps the central theme of this discussion of goldenseal's future is in fact our relationship to the plant world. Those of us who use herbs in our daily lives, whether we be writers, herbalists, natural food store owners, doctors, or patients, we must be more than consumers of plant medicines.

We have to look forward, backward, and outward, beyond the glass and plastic packaging in which we so often receive our herbs, and consider the fields and woods where the herbs live. It is our obligation, in fact our privilege, to be stewards of the plants we utilize. It is my hope that we can be both wise and thoughtful in fulfilling this task.

REFERENCES

- Bradley, Peter, ed. *British Herbal Compendium*, Vol 1. Bournemouth, Dorset, England: British Herbal Medicine Association, 1992.
- Duke, James J., Ph.D. *The Green Pharmacy: New Discoveries in Herbal Remedies for Common Diseases and Conditions from the World's Foremost Authority on Healing Herbs*. Emmaus, Penn.: Rodale Press, 1997.
- Duke, James, Ph.D. *Handbook of Northeastern Indian Medicinal Plants*. Lincoln, Mass.: Quarterman Publications, Inc., 1986.
- Felter, H.W., M.D. *The Eclectic Materia Medica, Pharmacology and Therapeutics*. City Eclectic Medical Publications, 1985 (first published 1922).
- Foster, Steven. "Goldenseal's Bright Future," *Better Nutrition* 59 (1):58-63, 1997.
- Grieve, Maude. *A Modern Herbal*. New York: Hefner Publications, 1959.
- Tyler, Varro, Ph.D. *Herbs of Choice*. New York: Hawthorne Press, 1994.
- Weiss, Rudolf. *Herbal Medicine*. Beaconsfield, England: Beaconsfield Publishers, Ltd., 1988.
- Jamison Starbuck, J.D., N.D., is *Better Nutrition's* new herb authority. A licensed naturopathic and homeopathic physician, Dr. Starbuck is a 1989 graduate of Portland, Oregon's National College of Naturopathic Medicine. Her Missoula (Montana)-based family practice treats the whole person via constitutional homeopathy, botanical medicine, nutrition, counseling, and other natural modalities. A past-president of the American Association of Naturopathic Physicians (AANP), she has served on a National

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Pharmaceutical polysaccharides from Echinacea, for stimulation of
macrophage activity
INVENTOR(AUTHOR): Wagner, Hildebert; Zenk, Meinhard H.; Ott, Holger
LOCATION: Fed. Rep. Ger.
ASSIGNEE: Lomapharm Rudolf Lohmann G.m.b.H. K.-G. Pharmazeutische Fabrik
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DESCRIPTORS:
Polysaccharides, biological studies...
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Bactericides, Disinfectants, and Antiseptics, medical... Fungicides and
Fungistats, medical... Protozoacides... Virucides and Virustats, medical...
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